

Marvel SCIENCE FICTION

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BRADBURY
ASIMOV
LEIBER
PRATT
GALLUN
VANCE
TENN
OTHERS

THE MOST
DANGEROUS LOVE
BY PHILIP LATHAM

Marvel SCIENCE FICTION

ALL STORIES BRAND NEW
NO REPRINTS!

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A SHORT NOVEL

MOUNTAINS OF THE MIND (Art—F. R. Paul).....Richard Matheson 86

It was probably Iowa, he said. Where all man's ideas came from....

SUSPENSEFUL NOVELET

CHOWHOUND (Art—H. Harrison).....Mack Reynolds 34

A particularly peculiar episode of the War between the Galaxies....

SPECIAL FEATURE

SHOULD POPULATION BE CONTROLLED? A Controversy 75

(Three stirring answers to the most vital question of our time!)

Yes Fritz Leiber

No Arthur J. Burks

Maybe Fletcher Pratt

7 SHORT STORIES

EMBROIDERY (Art — L. Ames).....Ray Bradbury 4

It was supposed to happen at five o'clock....

"WILL YOU WALK A LITTLE FASTER" (Art—H. Bok) William Tenn 7

If the human race wanted to wipe itself out, fine, but there was no need to wreck such a valuable piece of real estate as Earth....

THE DARK DIMENSION..... (Art—H. Bok)..... *William Morrison* 15

The little shadow said it intended no harm. How could a thing so minute and nebulous, menace a big, powerful man anyway?

SHAH GUIDO G..... (Art—L. Ames)..... *Isaac Asimov* 27

With its long-range atomic artillery tripled and this new division of Waves to guard it, too, the Sky-Island would be really safe....

THE MOST DANGEROUS LOVE..... (Art—H. Harrison)..... *Philip Latham* 50

The kid had no time for girls; he was too busy with his scanner. Which should have given him a perfect constitution for high-c space flight....

THE RESTLESS TIDE..... (Art—L. Ames)..... *Raymond Z. Gallun* 60

And now (a United World having turned war into a myth, and the labs having mastered the mysteries of youth and age and disease and the human psyche)....

DOVER SPARGILL'S GHASTLY FLOATER (Art—V. Napoli) *Jack Vance* 114

When Dover saw a good thing, he went after it, got it. What looked good to him right now, for example, was the moon....

DEPARTMENTS AND FEATURES

20 QUESTIONS SCIENCE-FICTION QUIZ..... *The Editors* 73

UNDER THE LENS..... *Letters From Our Readers* 83

THE HYDRA CLUB..... (Art—H. Harrison)..... *text by Judith Merril* 126

Interesting history of a Science-Fiction organization composed of SF Writers, Artists and Editors.

MARVEL'S COVER TITLE CONTEST..... *3rd Cover*

THE FIRST SPACE SUIT..... *4th Cover*



☛ This month's 4-color cover by well-known cover and interior artist, **HANNES BOK**. Using a mixed technique of dyes, color pencil, water-color and ink.

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# EMBROIDERY

by RAY BRADBURY

THE dark porch air in the late afternoon was full of needle flashes, like a movement of gathered silver insects in the light. The three women's mouths twitched over their work. Their bodies lay back and then imperceptibly forward, so that the rocking chairs tilted and murmured. Each woman looked to her own hands, as if quite suddenly, they had found their hearts beating there.

"What time is it?"

"Ten minutes to five."

"Got to get up in a minute and shell those peas for dinner."

"But—" said one of them.

"Oh yes, I forgot. How foolish of me . . ." The first woman paused, put down her embroidery and needle, and looked through the open porch door, through the warm interior of the quiet house, to the silent kitchen. There upon the table, seeming more like symbols of domesticity than anything she had ever seen in her life, lay the mound of fresh-washed peas in their neat, resilient jackets, waiting for her fingers to bring them into the world.

"Go hull them if it'll make you feel good," said the second woman.

"No," said the first. "I won't. I just won't."

The third woman sighed. She embroidered a rose, a leaf, a daisy on a

green field. The embroidery needle rose and vanished.

The second woman was working on the finest, most delicate piece of embroidery of them all, deftly poking, finding, and returning the quick needle upon innumerable journeys. Her quick black glance was on each motion. A flower, a man, a road, a sun, a house; the scene grew under hand, a miniature beauty, perfect in every threaded detail.

"It seems at times like this that it's always your hands you turn to," she said, and the others nodded enough to make the rockers rock again.

"I believe," said the first lady, "that our souls are in our hands. For we do *everything* to the world with our hands. Sometimes I think we don't use our hands half enough; it's certain we don't use our heads."

They all peered more intently at what their hands were doing. "Yes," said the third lady, "when you look back on a whole lifetime, it seems you don't remember faces so much as hands and what they did."

They recounted to themselves the lids they had lifted, the doors they had opened and shut, the flowers they had picked, the dinners they had prepared, all with slow or quick fingers, as was their manner or custom. Look-

*It was supposed to happen at five o'clock. . . .*



ing back, you saw a flurry of hands, like a magician's dream, doors popping wide, taps turned, brooms wielded, children spanked. The flutter of pink hands was the only sound; the rest was a dream without voices.

"No supper to fix tonight or tomorrow night or the next night after that," said the third lady.

"No windows to open or shut."

"No coal to shovel in the basement furnace next winter."

"No papers to clip cooking articles out of."

And suddenly they were crying. The tears rolled softly down their faces

and fell into the material upon which their fingers twitched.

"This won't help things," said the first lady at last, putting the back of her thumb to each under-eyelid. She looked at her thumb and it was wet.

"Now look what I've done!" cried the second lady, exasperated. The others stopped and peered over. The second lady held out her embroidery. There was the scene, perfect except that while the embroidered yellow sun shone down upon the embroidered green field, and the embroidered brown road curved toward an embroidered pink house, the man standing on the

road had something wrong with his face.

"I'll just have to rip out the whole pattern, practically, to fix it right," said the second lady.

"What a shame." They all stared intently at the beautiful scene with the flaw in it.

The second lady began to pick away at the thread with her little deft scissors flashing. The pattern came out thread by thread. She pulled and yanked almost viciously. The man's face was gone. She continued to seize at the threads.

"What're you *doing*?" asked the other women.

They leaned and saw what she had done.

The man was gone from the road. She had taken him out, entirely.

They said nothing but returned to their own tasks.

"What time is it?" asked someone.

"Five minutes to five."

"Is it supposed to happen at five o'clock?"

"Yes."

"And they're not sure what it'll do to anything, really, when it happens?"

"No, not sure."

"Why didn't we stop them before it got this far and this big?"

"It's twice as big as ever before. No, ten times, maybe a thousand."

"This isn't like the first one. This is different. Nobody knows what it might do when it comes."

They waited on the porch in the smell of roses and cut grass. "What time is it now?"

"One minute to five."

The needles flashed silver fire. They swam like a tiny school of metal fish

in the darkening summer air.

Far away, a mosquito sound. Then, something like a tremor of drums. The three women cocked their heads, listening.

"We won't hear anything, will we?"

"They say not."

"Perhaps we're foolish. Perhaps we'll go right on, after five o'clock, shelling peas, opening doors, stirring soups, washing dishes, making lunches, peeling oranges . . ."

"My how we'll laugh to think we were frightened by an old experiment!" They smiled a moment at each other.

"It's five o'clock."

At these words, hushed, they all busied themselves. Their fingers darted. Their faces were turned down to the motions they made. They made frantic patterns. They made lilacs and grass and trees and houses and rivers in the embroidered cloth. They said nothing, but you could hear their breath in the silent porch air.

Thirty seconds passed.

The second woman sighed, finally, and began to relax. "I think I just *will* go shell those peas for supper," she said. "I—"

But she hadn't time even to lift her head. Somewhere, at the side of her vision, she saw the world brighten, and catch fire. She kept her head down, for she knew what it was. She didn't look up, nor did the others, and in the last instant their fingers were flying, they didn't glance about to see what was happening to the country, the town, this house, or even this porch. They were only staring down at the design in their flickering hands. (please turn to page 72)

# "WILL YOU WALK A LITTLE FASTER"

by WILLIAM TENN

**A**LL right. So maybe I should be ashamed of myself.

But I'm a writer and this is too good a story to let go. My imagination is tired, and I'm completely out of usable plots; I'm down to the gristle of truth. I'll use it.

Besides, someone's bound to blab sooner or later — as Forkbeard pointed out, we're that kind of animal — and I might as well get some private good out of the deal.

Why, for all I know, there is a cow on the White House Lawn this very moment! . . .

Last August, to be exact, I was perspiring over an ice-cold yarn that I never should have started in the first place, when the door-bell rang.

I looked up and yelled, "Come in! Door's open!"

The hinges squeaked a little, the way they do in my place. I heard feet slap-slapping up the long corridor which makes the rent on my apartment a little lower than most of the others in the building. I couldn't recognize the walk as belonging to anyone I knew, so I waited with my fin-

gers on the typewriter keys and my face turned to the study entrance.

After a while, the feet came around the corner. A little man, not much more than two feet high, dressed in a green knee-length tunic, walked in. He had a very large head, a short pointed red beard, a long pointed green cap, and he was talking to him-



*If the human race wanted to wipe itself out, fine, but there was no need to wreck such a valuable piece of real estate as Earth....*

"WILL YOU WALK A LITTLE FASTER"

self. In his right hand, he carried a golden pencil-like object; in his left, a curling strip of what seemed to be parchment.

"Now, you," he said with a guttural accent, pointing both the beard and the pencil-like object at me, "now you must be a writer."

I closed my mouth carefully around a lump of air. Somehow, I noted with interest, I seemed to be nodding.

"Good." He flourished the pencil and made a mark at the end of a line halfway down the scroll. "That completes the enrollment for this session. Come with me, please."

He seized the arm with which I had begun an elaborate gesture. Holding me in a grip that had all the resiliency of a steel manacle, he smiled benevolently and walked back down my entrance hall. Every few steps he walked straight up in the air, and then — as if he'd noticed his error — calmly strode down to the floor again.

"What — who —" I said, stumbling and tripping and occasionally getting walloped by the wall, "you wait, you — who — *who* —"

"Please do not make such repetitious noises," he admonished me. "You are supposed to be a creature of civilization. Ask intelligent questions if you wish, but only when you have them properly organized."

I brooded on that while he closed the door of my apartment behind him and began dragging me up the stairs. His heart may or may not have been pure, but I estimated his strength as being roughly equivalent to that of ten. I felt like a flag being flapped from the end of my own arm.

"We're going up?" I commented

tentatively as I swung around a landing.

"Naturally. To the roof. Where we're parked."

"Parked, you said?" I thought of a helicopter, then of a broomstick. Who was it that rode around on the back of an eagle?

Mrs. Flugelman, who lived on the floor above, had come out of her apartment with a canful of garbage. She opened the door of the dumb-waiter and started to nod good-morning at me. She stopped when she saw my friend.

"Yes, parked. What you call our flying saucer." He noticed Mrs. Flugelman staring at him and jutted his beard at her as we went by. "Yes, I said flying saucer!" he spat.

Mrs. Flugelman walked back into her apartment with the canful of garbage and closed the door behind her very quietly.

Maybe the stuff I write for a living prepared me for such experiences, but — somehow — as soon as he told me that, I felt better. Little men and flying saucers, they seemed to go together. Just so halos and pitchforks didn't wander into the continuity.

When we reached the roof, I wished I'd had time to grab a jacket. It was evidently going to be a breezy ride.

The saucer was about thirty feet in diameter and, colorful magazine articles to the contrary, had been used for more than mere sightseeing. In the center, where it was deepest, there was a huge pile of boxes and packages lashed down with criss-crossing masses of gleaming thread. Here and there in the pile, was the unpackaged metal of completely unfamiliar machinery.



Still using my arm as a kind of convenient handle to the rest of me; the little man whirled me about experimentally once or twice, then scaled me accurately end over end some twenty feet through the air to the top of the pile. A moment before I hit, golden threads boiled about me, cushioning like an elastic net, and tying me up more thoroughly than any three shipping clerks. My shot-putting pal grunted enthusiastically and prepared to climb aboard.

Suddenly he stopped and looked back along the roof. "Irngl!" he yelled in a voice like two ocean liners arguing. "Irngl! Bordge modgunk!"

There was a tattoo of feet on the roof so rapid as to be almost one sound, and eight-inch replica of my strong-arm guide — minus the beard, however — leaped over the railing and into the craft. Young Irngl, I decided, bordge modgunking.

His apparent parent stared at him suspiciously, then walked back slowly in the direction from which he had run. He halted and shook a ferocious finger at the youngster. Beside me, Irngl cowered.

Just behind the chimney were a cluster of television antennae. But the dipoles of these antennae were no longer parallel. Some had been carefully braided together; others had been tied into delicate and perfect bows. Growling ferociously, shaking his head so that the pointed red beard made like a metronome, the old man untied the knots and smoothed the dipoles out to careful straightness with his fingers. Then, he bent his legs slightly at their knobby knees and performed one of the more spectacular

standing broad jumps of all time.

And, as he hit the floor of the giant saucer, we took off. Straight up.

When I'd recovered sufficiently to regurgitate my larynx, I noticed that old redbeard was controlling the movement of the disc beneath us by means of an egg-shaped piece of metal in his right hand. After we'd gone up a goodly distance, he pointed the egg south and we headed that way.

Radiant power, I wondered? No information — not much that was useful — had been volunteered. *Of course*, I realized suddenly: I hadn't asked any questions! Grabbed from my typewriter in the middle of the morning by a midget of great brain and greater muscle — I couldn't be blamed, though: few men in my position would have been able to put their finger on the nub of the problem and make appropriate inquiries. *Now*, however —

"While there's a lull in the action," I began breezily enough, "and as long as you speak English, I'd like to clear up a few troublesome matters. For example —"

"Your questions will be answered later. Meanwhile, you will shut up." Golden threads filled my mouth with the taste of antiseptics, and I found myself unable to part my jaws. Redbeard stared at me as I grunted impotently. "How hateful are humans!" he said, beaming. "And how fortunate that they are hateful!"

The rest of the trip was uneventful, except for a few moments when the Miami-bound plane came abreast of us. People inside pointed excitedly, seemed to yell, and one extremely fat man held up an expensive camera and took six pictures very rapidly. Un-

fortunately, I noticed, he had neglected to remove the lens cap.

The saucer skipper shook his metal egg, there was a momentary feeling of acceleration—and the airplane was a disappearing dot behind us. Inrgl climbed to the top of what looked like a giant malted milk machine and stuck his tongue out at me. I glared back.

It struck me then that the little one's mischievous quality was mighty reminiscent of an elf. And his pop—the parentage seemed unmistakable by then—was like nothing else than a gnome of Germanic folklore. Therefore, didn't these facts mean that—that—that—I let my brain have ten full minutes, before giving up. Oh, well, sometimes that method works. Reasoning by self-hypnotic momentum I call it.

I was cold, but otherwise quite content with my situation and looking forward to the next development with interest and even pride. I had been selected, alone of my species, by this race of aliens for some significant purpose. I couldn't help hoping, of course, that purpose was not vivisection.

It wasn't.

We arrived, after a while, at something so huge that it could only be called a flying dinner-plate. I suspected that a good distance down, under all those belly-soft clouds, was the State of South Carolina. I also suspected that the clouds were artificial. Our entire outfit entered through a hole in the bottom. The flying dinner-plate was covered with another immense plate, upside-down, the whole making a hollow disc close to a quarter of a mile in diameter. Flying saucers

stacked with goods and people—both long and short folk were scattered up and down its expanse between great masses of glittering machinery.

Evidently I was wrong about having been selected as a representative sample. There were lots of us, men and women, all over the place—one to a flying saucer. It was to be a formal meeting between the representatives of two great races, I decided. Only why didn't our friends do it right—down at the U. N.? Possibly not so formal after all. Then I remembered Redbeard's comment on humanity . . .

On my right, an army colonel, with a face like a keg of butter, was chewing on the pencil with which he had been taking notes. On my left, a tall man in a gray sharkskin suit flipped back his sleeve, looked at his watch and expelled his breath noisily, impatiently. Up ahead, two women were leaning toward each other at the touching edges of their respective saucers, both talking at the same time and both nodding vehemently as they talked.

Each of the flying saucers also had at least one equivalent of my red-bearded pilot. I observed that while the females of this people had beards too, they were exactly one-half as motherly as our women. But they balanced, they balanced . . .

Abruptly, the image of a little man appeared on the ceiling. His beard was pink and it forked. He pulled on each fork and smiled down at us.

"To correct the impression in the minds of many of you," he said, chuckling benignly, "I will paraphrase your great poet, Shakespeare. I am

here to bury humanity, not to praise it."

A startled murmur broke out all around me. "Mars," I heard the colonel say, "bet they're from Mars. H. G. Wells predicted it. Dirty little, red little Martians. Well, just let them try!"

"Red," the man in the gray shark-skin suit repeated, "Red?"

"Did you ever—" one of the women started to ask. "Is that a way to begin? No manners! A real foreigner."

"However," Forkbeard continued imperturbably from the ceiling; "in order to bury humanity properly, I need your help. Not only yours, but the help of others like you, who, at this moment, are listening to this talk in ships similar to this one and in dozens of languages all over the world. We need your help—and, knowing your peculiar talents so well, we are fairly certain of getting it!"

He waited until the next flurry of fist-waving and assorted imprecations had died down; he waited until the anti-Negroes and the anti-Jews, the anti-Catholics and the anti-Protestants, the Anglophobes and the Russophobes, the vegetarians and the fundamentalists, in the audience had all identified him colorfully with their peculiar concepts of the Opposition and had exorciated him soundly.

Then, once relative quiet had been achieved, we got the following blunt tale, rather contemptuously told, with mighty few explanatory flourishes:

There was an enormous and complex galactic civilization surrounding our meager nine-planet system. This civilization, composed of the various intelligent species throughout the gal-

axy, was organized into a peaceful federation for trade and mutual advancement.

A special bureau in the federation discharged the biological duty of more advance races to new arrivals on the cerebral scene. Thus, quite a few millennia ago, the bureau had visited Earth to investigate tourist accounts of a remarkably ingenious animal that had lately been noticed wandering about. The animal having been certified as intelligent with a high cultural potential, Earth was closed to tourist traffic and sociological specialists began the customary close examination.

"And, as a result of this examination," the forked pink beard smiled gently down from above. "the specialists discovered that what you call the human race was non-viable. That is, while the individuals composing it had strongly developed instincts of self-preservation, the species as a whole was suicidal."

"Suicidal!" I found myself breathing up with rest.

"Quite. This is a matter on which there can be little argument from the more honest among you. High civilization is a product of communal living and Man, in groups, has always tended to wipe himself out. In fact, a large factor in the development of what little civilization you do experience have been the rewards contingent upon the development of mass-destructive weapons."

"We have had peaceful, brotherly periods," a hoarse voice said on the opposite side of the ship.

The large head shook slowly from side to side. The eyes, I saw suddenly and irrelevantly, were all black iris.

"You have not. You *have* occasionally developed an island of culture here, an oasis of cooperation there; but these have inevitably disintegrated upon contact with the true standard-bearers of your species—the warrior-races. And when, as happened occasionally, the warrior-races were defeated, the conquerors in their turn became warriors, so that the suicidal strain was ever rewarded and became more dominant. Your past is your complete indictment, and your present—your present is about to become your executed sentence. But enough of this peculiar bloody nonsense—let me return to *living* history."

He went on to explain that the Federation felt a suicidal species should be allowed to fulfill its destiny unhampered. In fact, so long as overt acts were avoided, it was quite permissible to help such a creature along to the doom it desired—"Nature abhors self-destruction even more than a vacuum. The logic is simple: both cease almost as soon as they come into existence."

The sociologists having extrapolated the probable date on which humanity might be expected to extinguish itself, the planet was assigned—as soon as it should be vacated—to the inhabitants of an Earth-like world for the use of such surplus population as they might then have. These were the red-beards.

"We sent representatives here to serve as caretakers, so to speak, of our future property. But about nine hundred years ago, when your world still had six thousand years to run, we decided to hurry the process a bit as we experienced a rising index of population on our own planet. We therefore

received full permission from the Galactic Federation to stimulate your technological development into an earlier suicide. The Federation stipulated, however, that each advance be made the moral responsibility of an adequate representative of your race, that he be told the complete truth of the situation. This we did: we would select an individual to be the discoverer of a revolutionary technique or scientific principle; then we would explain both the value of the technique and the consequences to his species in terms of accelerated mass destruction."

I found it hard to continue looking into his enormous eyes. "In every case"—the booming rattle of the voice had softened perceptibly—"in every case, sooner or later, the individual announced the discovery as his own, giving it to his fellows and profiting substantially. In a few cases, he later endowed great foundations which awarded prizes to those who advanced the cause of peace or the brotherhood of man. This resulted in little beyond an increase in the amount of currency being circulated. Individuals, we found, always chose to profit at the expense of their race's life-expectancy."

Gnomes, elves, kobolds! Not mischievous sprites—I glanced at Imgl sitting quietly under his father's heavy hand—nor the hoarders of gold, but helping man for their own reasons: teaching him to smelt metals and build machinery, showing him how to derive the binomial theorem in one part of the world and how to plow a field more efficiently in another.

To the end that people might perish from the Earth . . . Sooner.

"Unfortunately—ah, something has developed."

We looked up at that, all of us—housewives and handymen, preachers and professional entertainers—looked up from the tangle of our reflections and prejudices, and *hoped*.

As S-day drew nigh, those among the kobolds who intended to emigrate filled their flying saucers with possessions and families. They scooted across space in larger craft such as the one we were now in and took up positions in the stratosphere, waiting to assume title to the planet as soon as its present occupants used their latest discovery—nuclear fission—as they had previously used ballistics and aeronautics.

The more impatient wandered down to survey home-sites. They found to their annoyance that an unpleasant maggot of error had crawled into the pure mathematics of extrapolated sociology. Humanity should have wiped itself out shortly after acquiring atomic power. But—possibly as a result of the scientific stimulation we had been receiving recently—our technological momentum had carried us past uranium-plutonium fission up to the so-called hydrogen bomb.

Whereas a uranium-bomb Armageddon would have disposed of us in a most satisfactory and sanitary fashion, the explosion of several hydrogen bombs, it would seem, will result in the complete sterilization of our planet as the result of a subsidiary reaction at present unknown to us. If we go to war with this atomic refinement, Earth will not only be cleansed of all present life-forms, but it will also become uninhabitable for several mil-

lions of years in the future.

Naturally, the kobolds view this situation with a certain amount of understandable unhappiness. According to Galactic Law, they may not actively intervene to safeguard their legacy. Therefore, they would like to offer a proposition—

Any nation which guarantees to stop making hydrogen bombs and to dispose of those it has already made—and the little red-beards have, they claim, satisfactory methods of enforcing these guarantees—such a nation will be furnished by them with a magnificently murderous weapon. This weapon is extremely simple to operate and is so calibrated that it can be set to kill instantaneously and painlessly any number of people at one time up to a full million.

"The advantage to any terrestrial military establishment of such a weapon over the unstable hydrogen bomb, which is not only hard to handle but must be transported physically to its target," the genial face on the ceiling commented, "should be obvious to all of you! And, as far as we are concerned, anything which will dispose of human beings on a wholesale basis while not injuring—"

At this point, there was so much noise that I couldn't hear a word he was saying. For that matter, I was yelling quite loudly myself.

"—while not injuring useful and compatible life-forms—"

"Ah-h," screamed a deeply tanned stout man in a flowerful red sports shirt and trunks, "whyn't you go back where you came from?"

"Yeah!" someone else added wrathfully. "Can't yuh see yuh not wanted?"

Shut up, huh? Shut *up!*"

"Murderers," one of the women in front of me quavered. "That's all you are—murderers trying to kill inoffensive people who've never done you any harm. Killing would be just too good for you."

The colonel was standing on his toes and oscillating a portentous forefinger at the roof. "We were doing all right," he began apoplectically, then stopped to allow himself to unpurple. "We were doing *well* enough. I can tell you, without—without—"

Forkbeard waited until we began to run down.

"Look at it this way," he urged in a wheedling voice: "You're going to wipe yourselves out—you know it, we know it and so does everybody else in the galaxy. What difference can it possibly make to you whether you do it one way or another? At least by our method you confine the injury to yourselves. You don't damage the highly valuable real estate—to wit, Earth—which will be ours after you've ceased to use it. And you go out with a weapon which is much more worthy of your destructive propensities than any you have used hitherto, including atomic bombs."

He paused and spread knobbed hands down at our impotent hatred. "Think of it—*just think of it*: a million deaths at one plunge of a lever! What other weapon can make that claim?"

Skimming back northwards with Redbeard and Irngl, I pointed to the flying saucers radiating away from us through the delicate summer sky. "These people are all fairly respon-

sible citizens. Isn't it silly to expect them to advertise a more effective way of having their throats cut?"

There was a shrug of the green-wrapped shoulders. "With any other species, yes. But not you. The Galactic Federation insists that the actual revelation of the weapon, either to your public or your government, must be made by a fairly intelligent representative of your own species, in full possession of the facts, and after he or she has had an adequate period to reflect on the consequences of disclosure."

"And you think we will, eh? In spite of everything?"

"Oh, yes," the little man told me with tranquil assurance. "*Because* of everything. For example, you have each been selected with a view to the personal advantage you would derive from the revelation. Sooner or later, one of you will find the advantage so necessary and tempting that the inhibiting scruple will disappear; eventually, all of you would come to it. As Shulmr pointed out, each member of a suicidal race contributes to the destruction of the whole even while attentively safeguarding his own existence. Disagreeable creatures, but fortunately short-lived!"

"I take it that more than one nation has the hydrogen bomb?"

"Quite correct. You are an ingenious race. Now if you wouldn't mind stepping back onto your roof? We're in a bit of a hurry, Irngl and I, and we have to disinfect after—Thank you."

I watched them disappear upwards into a cloud bank. Then, noticing a television dipole tied in a hangman's

(Please turn to page 26)

# THE DARK DIMENSION

by WILLIAM MORRISON



*The little shadow said it intended no harm. How could a thing so minute and nebulous, it argued laughingly, menace a big powerful man anyway?*

"THERE is no danger," said the tiny shadowy figure with which Gerald Weldon was communicating. "None whatsoever."

Weldon smiled, somewhat bitterly. "You are lying. Like all the others, you are lying. It will mean my life."

"No," protested the other. "We do not lie. We want you to come to us. It is difficult, but if you succeed—you will be the most brilliant human being who has ever existed."

Weldon nodded. "There you are telling the truth. I know that it will be the climax of my career. But about the danger, I know also that you are lying."

And he thought back to the others who had lied to him, and had turned his once hopeful life into a failure so complete that no one but he himself was even aware that he had failed.

His first shock had occurred thirty years before, when he had been nine-

teen, a tall gangling student with an eager interest in life, and an unusual passion for science. He had graduated from high school, and would have liked to study chemistry in college, but he lacked the money to support himself, and he had done the next best thing by getting a job as helper at a University laboratory. He had considered himself lucky to be permitted to breathe so learned an atmosphere.

While working at the University, he had studied by himself, and experimented when the regular students had gone. One day, Professor Gamper, himself in his twenties, had discovered what Weldon was doing and given him some encouragement. That had been all he needed.

A few months later he had called Professor Gamper in and proudly shown him a simple experiment which was to form the basis for what later became known as the Gamper reaction. He had thought, till then, that Professor Gamper, even though very young for his position, was like the professors of his glorified biographies, or like the ludicrous butts of student jokes — a harmless, absent-minded individual with a brilliant mind that functioned only in the clouds of lofty speculation.

He learned better later when he saw his discovery described in an article under Gamper's name, and heard Gamper congratulated by the other professors. When he protested, Gamper at first only laughed.

"You are imagining things, Weldon," Gamper said. "I discovered this reaction two years ago. I've been applying it to different compounds ever since."

"But, Professor Gamper, don't you remember that I showed it to you? And that you said, 'How unexpected?' And at first you didn't quite understand how — and I had to explain —"

He became almost incoherent, and Gamper said coldly, "My dear young man, you are suffering from hallucinations. I am sorry, for you seem like an industrious worker, but I do not think it safe to allow access to the laboratory to an unstable person like you. You will be given your pay for the next two weeks, but I am afraid that you had better start looking at once for another position."

That had taught him a lesson, but one lesson had not been enough. Three years later he had met a man who had a high opinion of his scientific abilities. By this time Gerald Weldon was working as a janitor's helper. He received very little pay, but he had no one to support except himself, and he was able to put aside part of his money to buy apparatus. In the house where he roomed he met Arnold Clayton, to whom he confided the story of what had taken place with Professor Gamper. Clayton was indignant, and Weldon felt warmed by his sympathy. He also sympathized, in turn, with Clayton when the latter confided that he too had been the victim of a despicable act: A movie plot he had submitted had been stolen from him and made into a profitable film.

Two years later, Clayton's sympathy had turned out to be profitable. He had patented, in his own name, a little gadget on which Weldon had been working in his spare time. By the day that Weldon managed to see him in an attempt to protest personally, Clay-



ton had a butler, and the butler efficiently threw the inventor out of the house.

After that, Weldon became secretive. Two lessons had been enough, and he was resolved that there would be no more. But the things he worked on were no longer of the kind by which a man could easily become famous or make a million dollars. When finally he tried to submit some of his papers to scientific journals, they were always rejected. No one even paid him the compliment of trying to steal his ideas.

By the time he was thirty, he had given up trying to be successful. Some people, he realized dimly, whatever other talents they possessed, lacked the special ones needed for acquiring fame or money. At thirty he found a job as repairman in a paper box factory, and retained the job for more than fifteen years. In his spare time he worked on the things that interested him, not caring whether they interested anyone else or not.

And now, at forty-nine, to his own amazement he had accomplished a feat which he was sure would put all previous scientific discoveries in the shade. If people but knew, they would indeed regard him as the most brilliant human being who had ever existed. The one thing that now stood in his way was fear of taking the final step, of proving what he was sure he had discovered. He was certain that he would not survive his own proof.

His success was embodied, so to speak, in a shadow, the shadow of the creature on his desk. The shadow was so tiny that no one who entered his room would have paid any attention

to it, unless Weldon had pointed it out. A tiny amorphous dark area, hardly an inch across in its largest diameter, it pulsed in front of him, wavering and changing shape as he stared at it. The shadow itself made no sound; it communicated by means of the apparatus Weldon had set up. This was a small but powerful source of strange elementary field whose intensity varied, not like the usual gravitational or electromagnetic fields, as the inverse square of the distance, but as the inverse cube. The average scientist would have been more excited upon learning of this incredible field than he would have been upon seeing the shadow. He would have become so excited that his first tendency would have been to deny its existence.

Gerald Weldon, seemingly talking to himself, said, "This time I have protected my discovery. Therefore I need be in no haste to confirm it."

There was amusement in the tiny shadow's reply. "You have protected it from us?"

"From my fellow men. I have kept a notebook, dated, and witnessed by my landlady and a fellow lodger, who have not understood the things they signed. I have also sent myself by registered mail descriptions of what I have found. The letters are now in a safe deposit box. Yes, these things it will be impossible to steal."

"They do not matter. Merely succeed in coming to us, and you will be universally regarded as the most brilliant man who ever lived, whether all previous discoveries are stolen or not."

"Perhaps it will be worth giving my life," conceded Weldon thoughtfully. "Still, I would like to remain alive

to enjoy the fame my brilliance will bring. I am not one of those men who are satisfied to know that reputation will come when they are dead."

"There need be no talk of death. You know how small we are. Even the shadow you see magnifies us tremendously. You are to us as a—a—" The creature paused, and the shadow flickered while it sought for the proper image, as if afraid that the wrong word might give Weldon undesirable ideas. "—as one of your whales to a man," it finished finally.

"As a whale? No. I am larger, compared to you, than that."

"At any rate, you are too large for us to harm you, if we so desired. And we should never dream of it. We need you too greatly."

"Why?"

"For your incredible strength. We face a terrible disaster."

"What is it?"

For a full minute there was no answer, though Weldon waited patiently. But at last the creature said, "You would not understand an explanation. You must come here to see for yourself."

"That's no answer. But I do not blame you for not answering. It would be difficult for you to think of a lie that would convince me. And if you told the truth, I should guess the danger I would be in. Perhaps I can guess it even without your help."

"We shall tell you at the proper time."

"Your universe lacks energy," said Weldon thoughtfully. "That much I have learned."

This time the reply was quick, too quick. "You need have no fear. You

will not freeze to death."

"Do you have oxygen?"

"All we need."

"Enough to spare for a creature like me? I shall breathe enough for a million of you."

"There will be more than enough to spare. We lack neither oxygen nor food."

"Perhaps I shall not need oxygen or food in your universe."

"You shall have whatever you do need."

Weldon paused. In all this verbal sparring, the tiny shadow had told him nothing that he had not already known. And he was sure that it would tell him nothing no matter how long they conversed. The one thing of which he was completely certain, however, was that there was danger.

It had been ten years before this, at a time when his bitterness against such men as Clayton and Professor Gamber had reached its peak, that he had first got on the track of the strange force which had brought this creature to him. Only in and near the nuclei of atoms had scientists ever found evidence that simple forces varying as the cubes or higher powers of the distance, might possibly exist. Weldon had suspected that these forces might be perceptible at greater than nuclear distances, and had found ways to confirm his suspicions.

He had been so excited that for a time all thoughts of the men he hated were driven from his mind. He had the idea, at first, of trying to publish his results, but then he remembered his experiences with those previous communications to the editors of scientific journals, and hesitated. And

then he realized another reason for being cautious. So far he had discovered but the beginning of something new. There was much more to be discovered, but for that he would need complicated and expensive equipment, which would take him time to secure. If he announced his discovery now, others, with all the equipment of great laboratories at their command, would rush into the field and take his discovery away from him. His name would be relegated to a minor footnote in the history of science.

It was such reflections as these that made him keep his discovery a secret, and it was not long before he was glad that he had done so. The new forces he had discovered were difficult to handle. He had to spend an additional two years before he could increase their intensity beyond the range of molecular distances.

At this point he had realized that a still greater discovery was awaiting him, and he had pressed onward feverishly. When he had made it, no other name in the scientific world would be on a par with his. Theft of his ideas would be out of the question. People would hang on his every word as on the revelations of a master—and among these revelations he intended to include a bitter denunciation of Clayton and Professor Gamper.

But the difficulties were enormous, and only in the past two months had he finally overcome them. Even so, he wondered how many people would believe him, merely on the evidence of that tiny shadow flickering on his desk. And he wondered too if he would have to give his life in order to supply the final proof.

The shadow was still waiting for his answer, and Weldon realized that to the tiny thing, with its accelerated time scale, his silence must have seemed to last for hours or days. He said finally, "I do not believe you. I have had experience with liars before, and they have taught me well. But there are others who will believe."

"They cannot come to us!"

"I shall teach them how. And I shall teach you how to lie to them in a manner to appeal to their weaknesses. One seeks fame and position. The other, profit."

"I need not lie. There will be enough of both fame and profit. You may have them for yourself also."

"Save the lies for them," said Weldon, and threw a switch which put an end to the shadow.

For he had thought of two people who would most certainly have faith in his abilities, and believe him when he said that he had discovered something important. They were the two people who had all the reason in the world to believe him . . . Clayton and Professor Gamper.

He saw them a week later. They had been exceedingly wary about accepting his invitation to witness a great discovery, but they had come. After the lapse of so many years, they had changed greatly, perhaps even more than he had. He himself, from a tall gaugling youth, had become a somewhat stoop-shouldered but powerful middle-aged man. In Arnold Clayton; the change had been less pleasant; time had turned him into shrewd, pig-eyed fat. And Gamper, now in his fifties, had the smooth, efficient air of an administrator who has run thou-

sands of things successfully, chief among them his own interests.

He greeted them with a smile and a show of heartiness. "After so many years you might expect to find me bitter," he said. "But I'm not."

Clayton merely grunted. The former Professor Gamper, now a Dean, said with surprise, "Bitter? For what possible reason?"

It almost seemed as if he had deliberately forgotten that theft of so many years back. Weldon smiled at him, and said, "I don't intend to discuss that."

Clayton spoke. "You wrote me that you had something profitable in mind. Otherwise I shouldn't have wasted my time coming here."

"I have something incredibly profitable in mind. For me as well as for you. This time I do not intend to be cheated out of my share. We three shall share and share alike."

"Why so generous?" demanded Clayton.

"Because I lack money and reputation to exploit what I have discovered. You, Clayton, have money. And Dean Gamper has reputation. Those are the things I ask you to contribute."

"And you're not afraid of our cheating you?"

"I am wary, but not actually afraid. However, let us not discuss that. Let me tell you what I have found."

Rapidly, he sketched his discovery of the inverse cube force. As he did so he could almost read Gamper's mind, incredulous at first, then giving way to conviction, and seizing on the different aspects of what he said in order to find a way of using the discovery for selfish purposes of his Gamper's

own. Clayton, less impressed by the scientific significance of what he had found, was just as obviously thinking of the money he might make.

"Wait, gentlemen," said Weldon pleasantly. "There is more to come, much more. Using this new force, I have found a key to the fourth dimension."

That almost ended it. He saw that they were now ready to believe that his mind had given way after years of brooding. "Einstein, and space-time," said Dean Gamper, rather contemptuously.

"Not Einstein. A fourth dimension in space, a dimension perpendicular to the three of our space."

"Have you laid claim to any four-dimensional objects?" asked Clayton with a sneering laugh.

"Nothing I can turn over to you. But I have found a new three-dimensional universe. Two of its dimensions coincide with ours. The fourth is at right angles to ours. Hence, at best, the objects in this new universe can appear to us only as shadows."

"Strange," said Dean Gamper, his voice showing lack of interest. "It would seem that a discovery so obvious should have been made long before."

"It would have been, except for two reasons," Weldon went on. "The first is that objects in this universe are constructed on a much smaller, actually on a microscopic scale as a result, the shadows in our universe are very tiny. The second reason is that the shadows flicker, and disappear the moment an object in the other universe turns away from us. Thus, whatever shadows have previously appeared have either been overlooked or ascribed to

sources in our own world."

"I assume," said Dean Gamper politely, as if humoring him, "that you have learned how to control these objects and maintain them at the proper angle to permit the shadows to be seen."

"You are quick to grasp the facts, Dean Gamper," said Weldon graciously.

"I assume further that the means employed involve the inverse cube force."

"Exactly. The other forces we know extend through only our own three dimensions. This one extends into four, in an asymmetrical manner, dependent upon the nature of the dimensional coordinates."

Dean Gamper tried to look knowing, but Clayton looked frankly bewildered at the explanation. Both men's eyes, however, were hard. Clayton said, "It sounds crazy, but let's assume that you've discovered something. What is there in it for us? You've made some big claims. But you've told us nothing to indicate that you can fulfill them."

Dean Gamper nodded. "If objects are constructed on so small a scale, there would seem to be little of possible value in this other universe."

"Don't jump to conclusions," said Weldon softly. "Chemical and nuclear reactions take place in this new world with different speeds. My calculations enable me to conclude that such objects as uranium and neptunium, for example, are extremely stable under practically all conditions."

The two pairs of hard eyes brightened. "Go on," said Clayton. "Fourth dimension or no fourth dimension, this is getting interesting!"

"There also happen to be living creatures in this world. I have been in communication with them. They seek our help, and they have promised to help us in return."

This time they were too startled to sneer. Clayton exclaimed, "Living — intelligent — creatures?"

"And you've been in communication with them?" said Gamper.

Weldon nodded, enjoying both their surprise and the uncertainty that had displaced their former disbelief. "It hasn't been easy to establish. But I've finally succeeded."

"There's one thing," said Clayton, "that you'll have to prove. You'll have to show me these creatures."

"You'll see their shadows."

"Shadows aren't enough to convince me," said Clayton.

"Shadows are all that can appear in our dimension. And I think that you'll find them convincing enough."

Dean Gamper's mind was working in a quite different direction. He asked, "Why do they need our help?"

"A good question, Dean Gamper. The fact is that we are much larger and stronger than they are. They need our strength."

"What powers do they have? Why can't they help themselves?"

"That shall be my secret for a time, until I return from their world."

"Until you return?"

"Naturally. I shall need help in building a larger apparatus, but that will not take long with the money Mr. Clayton can supply. And then, I must insist that I be allowed to go first. The first human explorer of this new universe will leave a name that will go down in history. I intend to be

that explorer gentlemen."

The eyes of Clayton and Dean Gamper met briefly. Weldon watched them, and knew that his calculations had been correct. Indeed, it would have been difficult to miscalculate. He had followed their careers, and he remembered numerous stories about them. About the men who had been burned to death in one of Clayton's mansions while trying to save valuable objects of art which Clayton valued more than he did their lives. About the partners he had driven to suicide, as he might have driven Weldon himself. About the patients who had died of a disease that proved to be curable, while Dean Gamper, in a highly moral manner, held up money for research—money that he wanted for his own purpose.

Clayton said, "Why does anyone have to go?"

"Because no machine can make the trip. The passage through the interspace has to be made by a living person, conscious of what he had to do. In fact, it is at present impossible to introduce inanimate material of any sort from our universe to theirs. In going there it is certain that my shoes and clothes will be stripped off, and that I shall lose both my fingernails and my hair. But the genuinely living parts of my body will pass through without trouble."

"In that case, how can we expect to recover anything of value from their world?"

"Because all the difficulty is in going there, not in the coming back. The interspace is roughly analogous to a one-way valve."

Clayton had been staring in front

of him. He said finally, "I'd like to talk to one of those creatures you mentioned."

Weldon threw on the switch, and the shadow flickered on his desk. Clayton said, "That? Nothing more than that?"

"That. Go ahead and speak. The device I have invented will translate your words into their speech, and it will retranslate their answers."

"Look here, do you think that I'm going to believe what you say? Suppose I do get answers — what of it? A oija board will give answers."

"You think that there's a trick? Then what do you suppose causes the shadow?"

"Some object carefully placed in front of the light where we can't see it," said Clayton.

Weldon smiled and took out a flashlight, which he shone in Clayton's face. The pig-eyes slitted even further, and Clayton snarled, "Take that thing out of my eyes."

"I merely wanted to convince you that the light was reasonably bright." He directed the beam upon the shadow. The part of the desk surrounding it gleamed brilliantly. But the shadow continued to flicker, darker and more clearly outlined than ever.

Clayton's face paled. Gamper said, "Remarkable!"

"Let me show you something else. I have here a Geiger counter. I place it near the shadow."

The instrument began to click rapidly.

Dean Gamper said, "Do you mind if I play with this a bit?" And without waiting for Weldon's nod, he threw the switch. The shadow disappeared

and the clicking stopped. He threw the switch the other way, and once more the clicking began.

"The individual waiting to make contact with you," exclaimed Weldon, "has neptunium in his body. It's stable in his own world, but the monomolecular layer he can project, with my help, into this one, disintegrates as ordinary neptunium does."

"I still say it's a trick," insisted Clayton.

"Bring your own counter if you don't trust this one."

"That will be unnecessary," said Gamper impatiently. "I can see no possible way in which trickery could have produced the effect."

"I can," smiled Weldon. "However, I haven't found it necessary to try any. Go ahead and talk to the creature."

They talked, with both Clayton and Dean Gamper competing for the shadow's attention. And as they talked, they began to see the picture that Weldon had wanted them to see—Dean Gamper of himself as the Columbus of a new universe, Clayton as the possessor of a store of uranium and neptunium that would make him the richest man on earth.

Weldon hadn't told them of how he had protected his discoveries. And the creature with whom they spoke took care not to mention it. Moreover, Weldon had explained to the strange being something of human psychology. This time the creature did not insist so emphatically that there was no danger.

"There is a one in a hundred chance that an individual making the passage between the two universes in the difficult direction will come to harm," it

admitted with seeming frankness.

"I figure it as one in ten," said Weldon. "I still intend to try it."

"For an honor such as this," began Dean Gamper, "the risk is not too great."

"For all that money," observed Clayton, "it's worth taking a chance. You don't get anywhere unless you gamble once in a while."

"The gamble is mine," said Weldon firmly. He shut off the switch once more. "And now, gentlemen, let's get down to business."

If Weldon had been serious, the haggling might have gone on for hours without their reaching an agreement, for the terms the others offered him were almost as larcenous as their previous behavior. As it was, he put up a fierce token resistance, and then, when Clayton put five one thousand dollar bills upon the table, collapsed with dramatic suddenness. As Clayton knew, the sight of ready cash, especially with people who were not accustomed to bills of large denominations, had the effect of paralyzing thought. By the time the others finally left, they had induced him to sign away the lion's share of any commercial rights obtainable through the discovery.

They met in Weldon's rooms several times during the next month, and for the first passage into the other universe, almost two months after their first meeting. Weldon, using the equipment that Clayton's cash had bought, had assembled an apparatus that he was confident would work. It seemed no more outlandish at first glance than a complicated radio hook-up, although Weldon knew that no

radio technician would have got very far in trying to make sense of it.

Clayton said, "You're determined to go through with this yourself?"

Weldon nodded. "The honor is more than worth the danger. And to be frank with you, the chances of my coming back are worse than ten to one."

Clayton grunted. "I still don't see why we can't hire somebody to do the dangerous work."

Dean Gamper said thoughtfully, "Personally, I can understand Weldon's point about the honor. Still, it would seem to me honor enough to have made the discovery in the first place."

"The discovery must be confirmed," replied Weldon.

"Naturally. But are you sure, Weldon, that there is no other reason for your eagerness to make the trial yourself?"

"What if there are other reasons?"

"My dear fellow, you're not being frank with us," said Clayton reproachfully. It was one of his rarer moods that he now exhibited on his hard swollen face: an expression of sympathy that Weldon had last seen there twenty-five years before.

Weldon smiled, and wondered for how many deaths in all Clayton had been responsible. He said, "Frank? You bet I'm not." He started the apparatus going, and the shadow flickered on the desk. "But I'm not going to discuss it with you any longer. I'm going to check with one of the creatures—the third generation, by the way, from the one you spoke to a month ago, for they live and die rapidly—and then go across to them."

Dean Gamper moved rapidly, and his motions were most unacademic. He had a revolver out, and he struck Weldon a glancing blow across the head with it. Dazed and bleeding, Weldon fell to the floor. As his eyes glanced up, he noticed that Clayton held in his pudgy fist a revolver of his own. No, he had not been wrong about them.

The two armed men stared at each other, and Dean Gamper said gently, "It is possible, Mr. Clayton, that we can go together."

"That would be better than shooting each other. But first, don't you think we'd better ask that shadow some questions—without Weldon's butting in?"

Dean Gamper said, "Naturally," and addressed the tiny flickering being. "Is there danger in going to your universe?"

"None."

The two men exchanged glances. "We were told that there was," said Gamper.

"That was two generations back. The method has now been perfected, and there is no danger."

Clayton broke in. "What do you intend to do to strangers who arrive in your universe?"

"Do? We shall do as we have been told. We have been ordered to collect all our spare plutonium and neptunium and even heavier elements. They will belong to him who first comes to us to help us."

Clayton's eyes glittered. "Stores of the most precious metals in existence. And they're just waiting to be taken. No wonder he wanted to get there first!"



Dean Gamper's eyes caught Clayton. "We still go together," he said softly, his dignified old face just as hard as the other man's. "There will be enough for the two of us." Weldon pulled himself slowly to a sitting position and groaned. Gamper said, "The directions, please—ah, here they are." They were near the large machine that Weldon had constructed.

"You can't," said Weldon. "That shadow is lying. It's dangerous."

"Shut up," ordered Clayton.

Gamper was reading the instructions. "Directions for going and returning, independently of whether any one remains here with the apparatus or not. Pull lever A. When A dial reads 100, throw lever B—" He looked up. "This is most pleasing. Everything has been reduced to the most elementary steps."

"Then there's no sense in stalling around." Clayton said impatiently, his nostrils twitching as if he could sniff the waiting treasure, "Let's go."

Dean Gamper pulled lever A. Slowly the pointer on dial A climbed upward—lever B—button C—button D."

They flickered, faded, and were gone.

Weldon rose to his feet and threw a switch. He had expected some sort of attack, and he had been less hurt by the blow than he had let them see. The shadow was still dancing on his desk. He asked quickly, "Have they arrived?"

"Not yet. They are still in the interspace between our three-dimensional worlds."

"You did well. Everything went as I planned it."

"You know that they will not come back. And it will be known that they vanished from your rooms. Did you plan that?"

Weldon smiled. "Of course. I have been making a hidden dictaphone recording of everything said in this room—until I just now turned off the switch. I can prove that I wanted to go first, that I warned them of danger, and that they attacked me. I cannot be blamed for what will happen to them."

"You have done us a great service," said the shadow. "But you have missed an opportunity. You will not be known as the most brilliant man in our universe."

"Only in my own. But I shall be satisfied with that."

"I do not think there will be much further communication between us. We shall not need you again for many generations. And neither of us can come to the other. You guessed long ago."

"I guessed," agreed Weldon. "Only living creatures can find their way through the interspace. And as they pass through, the laws of the universe change. In your universe, such elements as uranium, neptunium, and plutonium, of which your bodies are composed, are stable. Here you would disintegrate to a rapid death. Here—"

He was interrupted by a strange blinding light, that unlike the flash-light beam he had once used, blotted out the shadow. It was a weird light, in reality the shadow of a light. It glowed fiercely and coldly, and then separated into two separate lights, each moving in its own direction. Then the lights faded and disappeared, and the shadow was flickering on his desk

once more.

"Here, in our universe," went on Weldon, as if he had not been interrupted, "such elements as carbon and nitrogen and oxygen, whose stable isotopes form our bodies, can exist for billions of years without disintegration. But in your universe they disintegrate rapidly, forming an atomic pile."

"Yes," said the shadow. "Our sun was dying, and we needed a new one. And there is very little matter in our universe. That is why we would have welcomed you, for to us you are as large, not as a whale, but as a sun. And you would have burst into flame when you reached us. But you were

too cautious. We are pleased, however, that thanks to you we now have twin suns."

"The most brilliant human beings anywhere," mused Weldon. "They were thieves and murderers in high positions, and I am happy that I have helped them become at long last highly useful individuals. And this time I do not even begrudge them their theft of my light."

He threw the switch, and the shadow disappeared. But it was a long time before Weldon could rid himself of the strangeness of the thought of such men as Clayton and Gamper lighting up a universe.

• THE END

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## "WILL YOU WALK A LITTLE FASTER" by William Tenn

(continued from page 14)

noose which Imgl's father had overlooked, I trudged downstairs.

For a while, I was very angry. Then I was glum. Then I was angry again. I've thought about it a lot since August.

I've read some recent stuff on flying saucers, but not a word about the super-weapon we'll get if we dismantle our hydrogen bombs. But, if someone had blabbed, how would I know about it?

That's just the point. Here I am a writer, a science-fiction writer no less, with a highly salable story that I'm not supposed to use. Well, it happens that I need money badly right now; and it further happens that I am plumb out of plots. How long am I supposed to go on being a sucker?

Somebody's probably told by now. If not in this country, in one of the

others. And I *am* a writer, and I have a living to make. And this is fiction, and who asked you to believe it anyhow?

Only — Only I did intend to leave out the signal. The signal, that is, by which a government can get in touch with the kobolds, can let them know it's interested in making the trade, in getting that weapon. I did intend to leave out the signal.

But I don't have a satisfactory ending to this story. It needs some sort of tag-line. And the signal makes a perfect one. Well — it seems to me that if I've told *this* much—and probably anyhow—

The signal's the immemorial one between man and kobold: Leave a bowl of milk outside the White House door.

• THE END

# SHAH GUIDO G.

by ISAAC ASIMOV

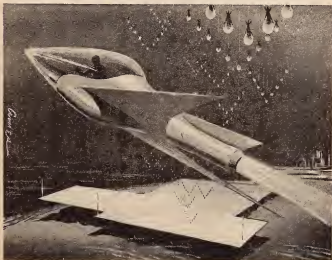
ONCE every year, Philo Plat returned to the scene of his crime. It was a form of penance. On each anniversary, he climbed the barren crest and gazed along the miles of smashed metal, concrete and bones.

The area was desolate. The metal crumplings were still stainless and un-rusted, their jagged teeth raised in futile anger. Somewhere among it all were the skeletons of the thousands who

had died, of all ages and both sexes. Their skulky sightlessness, for all he knew, were turning empty, curse-torn eye-holes at him.

The stench had long since gone from the desert, and the lizards held their lairs untroubled. No man approached the fenced-off burial ground where what remained of bodies lay in the gashed crater carved out in that final fall.

*With its long-range atomic artillery tripled and this new division of Waves to guard it too, the Sky-Island would be really safe...*



Only Plat came. He returned year after year and always, as though to ward off so many Evil Eyes, he took his gold medal with him. It hung suspended bravely from his neck as he stood on the crest. On it was inscribed simply, "To the Liberator!"

This time, Fulton was with him. Fulton had been a Lower One once in the days before the crash; the days when there had been Higher Ones and Lower Ones.

Fulton said, "I am amazed you insist on coming here, Philo."

Plat said, "I must. You know, the sound of the crash was heard for hundreds of miles; seismographs registered it around the world. My ship was almost directly above it; the shock vibrations caught me and flung me miles. Yet all I can remember of sound is that one composite scream as Atlantis began its fall."

"It had to be done."

"Words," sighed Plat. "There were babies and guiltless ones."

"No one is guiltless."

"Nor am I. Ought I to have been the executioner?"

"Someone had to be." Fulton was firm, "Consider the world now, twenty-five years later. Democracy re-established, education once more universal, culture available for the masses, and science once more advancing. Two expeditions have already landed on Mars."

"I know. I know. But that, too, was a culture. They called it Atlantis because it was an island that ruled the world. It was an island in the sky, not the sea. It was a city and a world all at once, Fulton. You never saw its crystal covering and its gorgeous buildings.

It was a single jewel carved of stone and metal. It was a dream."

"It was concentrated happiness distilled out of the little supply distributed to billions of ordinary folk who lived on the Surface."

"Yes, you are right. Yes, it had to be. But it might have been so different, Fulton. You know," he seated himself on the hard rock, crossed his arms upon his knees and cradled his chin in them, "I think, sometimes, of how it must have been in the old days, when there were nations and wars upon the Earth. I think of how much a miracle it must have seemed to the peoples when the United Nations first became a real world government, and what Atlantis must have meant to them."

"It was a capital city that governed Earth but was not of it. It was a black disc in the air, capable of appearing anywhere on Earth at any height; belonging to no one nation, but to all the planet; the product of no one nation's ingenuity but the first great achievement of all the race—And then, what it became!"

Fulton said, "Shall we go? We'll want to get back to the ship before dark."

Plat went on, "In a way, I suppose it was inevitable. The human race never did invent an institution that didn't end as a cancer. Probably in prehistoric times, the medicine man who began as the repository of tribal wisdom, ended as the last bar to tribal advance. In ancient Rome, the citizen army—"

Fulton was letting him speak—patiently. It was a queer echo of the past. And there had been other eyes upon him, patiently waiting, while he talked—

"—the citizen army that defended the Romans against all comers from Veii to Carthage, became the professional Praetorian Guard that sold the Imperium and levied tribute on all the Empire. The Turks developed the Janizzaries as their invincible advance guard against Europe and the Sultan ended as the slave of his Janizzary slaves. The barons of Medieval Europe protected the serfs against the Northmen and the Magyars, then remained six hundred years longer as a parasite aristocracy that contributed nothing."

Plat became aware of the patient eyes and said, "Don't you understand me?"

One of the bolder technicians said, "With your kind permission, Higher One, we must needs be at work."

"Yes, I suppose you must."

The technician felt sorry. This Higher One was queer, but he meant well. Though he spoke a deal of nonsense, he inquired after their families, told them they were fine fellows, and that their work made them better than the Higher Ones.

So he explained, "You see, there is another shipment of granite and steel for the new theater and we will have to shift the energy distribution. It is becoming very hard to do that. The Higher Ones will not listen."

"Now that's what I mean. You should *make* them listen."

But they just stared at him, and at that moment an idea crawled gently into Plat's unconscious mind.

\* \* \*

Leo Spinney waited for him on the crystal level. He was Plat's age but tall-

er and much more handsome. Plat's face was thin, his eyes were china-blue and he never smiled. Spinney was straight-nosed with brown eyes that seemed to laugh continuously.

Spinney called, "We'll miss the game."

"I don't want to go, Leo. Please."

Spinney said, "With the technicians again? Why do you waste your time?"

Plat said, "They work. I respect them. What right have we to idle?"

"Ought I to ask questions of the world as it is when it suits me so well?"

"If you do not, someone will ask questions for you some day."

"That will be some day, not this day. And, frankly, you had better come. The Sekjen has noticed that you are never present at the games and he doesn't like it. Personally, I think people have been telling him of your talks to the technicians and your visits to the Surface. He might even think you consort with Lower Ones."

Spinney laughed heartily, but Plat said nothing. It would not hurt them if they consorted with Lower Ones a bit more, learned something of their thinking. Atlantis had its guns and its battalions of Waves. It might learn some day that that was not enough. Not enough to save the Sekjen.

The Sekjen! Plat wanted to spit. The full title was "Secretary-General of the United Nations". Two centuries before it had been an elective office; an honorable one. Now a man like Guido Garshthavastra could fill it because he could prove he was the son of his equally worthless father.

"Guido G." was what the Lower Ones on the Surface called him. And usually, with bitterness, "Shah Guido

G.", because Shah had been the title of a line of despotic oriental kings. The Lower Ones knew him for what he was. Plat wanted to tell Pinney that, but it wasn't time yet.

\* \* \*

The real games were held in the upper stratosphere, a hundred miles above Atlantis, though the Sky-Island was itself twenty miles above sea-level. The huge amphitheater was filled and the radiant globe in its center held all eyes. Each tiny one-man cruiser high above was represented by its own particular glowing symbol in the color that belonged to the fleet of which it was part. The little sparks reproduced in exact miniature the motions of the ships.

The game was starting as Plat and Spinney took their seats. The little dots were already flashing toward one another, skimming and missing, veering.

A large scoreboard blazoned the progress of the battle in conventional symbology that Plat did not understand. There was confused cheering for either fleet and for particular ships.

High up under a canopy was the Sekjen, the Shah Guido G. of the Lower Ones. Plat could barely see him but he could make out clearly the smaller replica of the game-globe that was there for his private use.

Plat was watching the game for the first time. He understood none of the finer points and wondered at the reason for the particular shouts. Yet he understood that the dots were ships and that the streaks of light that licked out from them on frequent occasions represented energy beams which, one hundred miles above, were as real as flar-

ing atoms could make them. Each time a dot streaked, there was a clamor in the audience that died in a great moan as a target-dot veered and escaped.

And then there was a general yell and the audience, men and women up to the Sekjen himself, clambered to its feet. One of the shining dots had been hit and was going down — spiraling, spiraling. A hundred miles above, a real ship was doing the same; plunging down into the thickening air that would heat and consume its specially designed magnesium alloy shell to harmless powdery ash before it could reach the surface of the Earth.

Plat turned away. "I'm leaving, Spinney."

Spinney was marking his scorecard and saying, "That's five ships the Greens have lost this week. We've got to have more." He was on his feet, calling wildly, "Another one!"

The audience was taking up the shout, chanting it.

Plat said, "A man died in that ship."

"You bet. One of the Green's best, too. Damn good thing."

"Do you realize that a man *died*."

"They're only Lower Ones. What's bothering you?"

Plat made his slow way out among the rows of people. A few looked at him and whispered. Most had eyes for nothing but the game-globe. There was perfume all about him and in the distance, occasionally heard amid the shouts, there was a faint wash of gentle music. As he passed through a main exit, a yell trembled the air behind him.

Plat fought the nausea grimly.

\* \* \*

He walked two miles, then stopped.

Steel girders were swinging at the end of diamagnetic beams and the coarse sound of orders yelled in Lower accents filled the air.

There was always building going on upon Atlantis. Two hundred years ago, when Atlantis had been the genuine seat of government, its lines had been straight; its spaces broad. But now it was much more than that. It was the Xanadu pleasure dome that Coleridge spoke of.

The crystal roof had been lifted upward and outward many times in the last two centuries. Each time it had been thickened so that Atlantis might more safely climb higher; more safely withstand the possible blows of meteoric pebbles not yet entirely burnt by the thin wisps of air.

And as Atlantis became more useless and more attractive, more and more of the Higher Ones left their estates and factories in the hands of managers and foremen and took up permanent residence on the Sky-Island. All built; larger, higher, more elaborately.

And here was still another structure. Waves were standing by in stolid, duty-ridden obedience. The name applied to the females—if, Plat thought sourly, they could be called that—was taken from the Early English of the days when Earth was divided into nations. There, too, conversion and degeneration had obtained. The old Waves had done paper work behind the lines. These creatures, still called Waves, were front-line soldiers.

It made sense, Plat knew. Properly trained, women were more single-minded, more fanatic, less given to doubts and remorse than ever men could be.

They always had Waves present at

the scene of any building, because the building was done by Lower Ones, and Lower Ones on Atlantis had to be guarded. Just as those on the Surface had to be cowed. In the last fifty years alone, the long-range atomic artillery that studded the under-side of Atlantis had been doubled and tripled.

He watched the girder come softly down, two men yelling directions to one another as it settled in place. Soon there would be no further room for new buildings on Atlantis.

The idea that had nudged his unconscious mind earlier in the day, gently touched his conscious mind.

Plat's nostrils flared.

\* \* \*

Plat's nose twitched at the smell of oil and machinery. More than most of the perfume-spoiled Higher Ones, he was used to odors of all sorts. He had been on the Surface and smelt the pungence of its growing fields and the fumes of its cities.

He said to the technician, "I am seriously thinking of building a new house and would like your advice as to the best possible location."

The technician was amazed and gratified, "Thank you, Higher One. It has become so difficult to arrange the available power."

"It is why I come to you."

They talked at length. Plat asked a great many questions and when he returned to crystal level, his mind was a maze of speculation. Two days passed in an agony of doubt. Then he remembered the shining dot, spiralling and spiralling, and the young, wondering eyes upon his own as Spinney said,

"They're only Lower Ones."

He made up his mind and applied for audience with the Sekjen.

\* \* \*

The Sekjen's drawling voice accentuated the boredom he did not care to hide. He said, "The Plats are of good family, yet you amuse yourself with Technicians. I am told you speak to them as equals. I *hope* that it will not become necessary to remind you that your estates on the Surface require your care."

That would have meant exile from Atlantis, of course.

Plat said, "It is necessary to watch the Technicians, Sire. They are of Lower extraction."

The Sekjen frowned, "Our Wave Commander has her job. She takes care of such matters."

"She does her best, I have no doubt, Sire, but I have made friends with the Technicians. They are not safe. Would I have any other reason to soil my hands with them, but the safety of Atlantis?"

The Sekjen listened. First, doubtfully; then, with fear on his soft face. He said, "I shall have them in custody—"

"Softly, Sire," said Plat. "We cannot do without them meanwhile, since none of us can man the guns and the anti-gravs. It would be better to give them no opportunity for rebellion. In two weeks, the new theater will be dedicated with games and feasting."

"And what do they intend then?"

"I am not yet certain, Sire. But I know enough to recommend that a division of Waves be brought to Atlantis. Secretly, of course, and at the last minute so that it will be too late for the

rebels to change any plans they have made. They will have to drop them altogether and the proper moment, once lost, may never be regained. Thereafter, I will learn more. If necessary, we will train new men. It would be a pity, Sire, to tell anyone of this in advance. If the technicians learn our counter-measures prematurely, matters may go badly."

The Sekjen, with his jewelled hand to his chin, mused—and believed.

Shah Guido G., thought Philo Plat. In history, you'll go down as Shah Guido G.

\* \* \*

Philo Plat watched the gayety from a distance. Atlantis' central squares were crawling black with people. That was good. He himself had managed to get away only with difficulty. And none too soon, since the Wave Division had already cross-hatched the sky with their ships.

They were maneuvering edgily now, adjusting themselves into final position over Atlantis' huge, raised air-field, which was well able to take their ships all at once.

The cruisers were descending now, vertically, in parade formation. Plat looked quickly toward the city proper. The populace had grown quieter as it watched the unscheduled demonstration, and it seemed to him that he had never seen so many Higher Ones upon the Sky-Island at one time. For a moment, a last misgiving arose. There was still time for a warning.

And even as he thought that, he knew there wasn't. The cruisers were dropping speedily. He would have to hurry if he were himself to escape in



his own little craft. He wondered sickly, even as he grasped the controls, whether his friends on the Surface had received his yesterday's warning, or would believe it if they had received it. If they could not act quickly, the Higher Ones would yet recover from the first blow, devastating, though it was.

He was in the air, when the Waves landed, seven thousand five hundred tear-drop ships covering the air-field like a descending net. Plat drove his ship upward, watching—

And Atlantis went dark! It was like a candle over which a mighty hand was suddenly cupped. One moment, it blazed the night into brilliance for fifty miles around; the next it was black against blackness.

To Plat the thousands of screams blended into one thin, lost shriek of fear. He fled, and the shock vibrations of Atlantis' crash to Earth caught his ship and hurled it far.

He never stopped hearing that scream.

\* \* \*

Fulton was staring at Plat. He said, "Have you ever told this to anyone?"

Plat shook his head.

Fulton's mind went back a quarter-century, too. "We got your message, of course. It was hard to believe, as you expected. Many feared a trap even after report of the Fall arrived. But—well, it's history. The Higher Ones that remained, those on the Surface, were demoralized and before they could recover, they were done.

"But tell me," he turned to Plat with sudden, hard curiosity. "What was it you did? We've always assumed you

sabotaged the power stations."

"I know. The truth is so much less romantic, Fulton. The world would prefer to believe its myth. Let it."

"May I have the truth?"

"If you will. As I told you, the Higher Ones built and built to saturation. The anti-grav energy beams had to support a weight in buildings, guns and enclosing shell that doubled and tripled as the years went on. Any requests the Technicians might have made for newer or bigger motors were turned down, since the Higher Ones would rather have the room and money for their mansions and there was always enough power for the moment.

"The technicians, as I said, had already reached the stage where they were disturbed at the construction of single buildings. I questioned them and found exactly how little margin of safety remained. They were waiting only for the completion of the new theatre to make a new request. They did *not* realize, however, that, at my suggestion, Atlantis would be called upon to support the sudden additional burden of a division of Wave cavalry in their ships. Seven thousand five hundred ships, fully-rigged!

"When the Waves landed, then by almost two thousand tons, the anti-grav power supply was overloaded. The motors failed and Atlantis was only a vast rock, ten miles above the ground. What could such a rock do but fall."

Plat arose. Together, they turned back toward their ship.

Fulton laughed harshly, "You know, there is a fatality in names."

"What do you mean?"

"Why, that once more in history Atlantis sank beneath the Waves."

# CHOWHOUND by MACK REYNOLDS

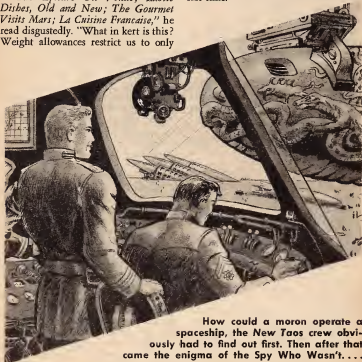
## CHAPTER I

**L**IEUTENANT Johnny Norsen ran a bony finger down the row of paper-back, onion-skin-paged books in the meager ship's library of the *New Taos*. There was a scowl on his angular face.

"*The Epicure On Venus; Exotic Disbes, Old and New; The Gourmet Visits Mars; La Cuisine Francaise*," he read disgustedly. "What in kерт is this? Weight allowances restrict us to only

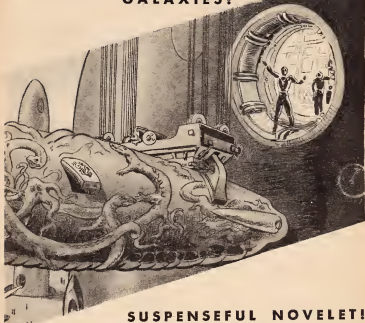
two hundred books for a cruise that's going to last almost a year, and what do we wind up with?"

Dick Roland snorted in support. "The skipper should've known better than to have Bakr pick out our reading material. He did the same thing that last time."



How could a moron operate a spaceship, the *New Taos* crew obviously had to find out first. Then after that came the enigma of the Spy Who Wasn't. . .

**A PARTICULARLY  
PECULIAR\* EPISODE OF  
THE WAR BETWEEN THE  
GALAXIES!**



**SUSPENSEFUL NOVELET!**

Doctor Thorndon had his face buried in his hands, studying a chess problem, but he spoke up mildly. "Every man to his own hobby, boys. Mart Bakr likes to experiment with exotic foods; very well. You, Dick, have several rather heavy volumes on advanced mathematics; and you, Johnny, spend your spare time boning up on . . ."

Johnny Norsen said, "That's beside

the point, Doc. Dick and I use our regular weight quota for any special books we bring aboard." He indicated the rows of books with a thumb. "But get a load of that. Bakr must have ten books there on cooking. He uses up his personal weight quota on little tins of fancy grub like sardines and . . ."

Ensign Mart Bakr entered the ship's wardroom, a scowl on his usually gen-

ial, plump face matching that of Norsen's. "What's the matter now?" he asked peevishly.

Doc Thorndon spoke before the first officer could. "Listen, boys, we're only one month out. It's too soon to start having these personality conflicts. Let's knock it off. At this rate you'll all be down with space cafard before the cruise is on its return leg."

Dick Roland shuddered at the threat and returned to his game of solitaire.

Johnny Norsen grunted, but returned to his inspection of the book titles. "Next time I'll see that I pick out the ship's library," he muttered.

Bakr stared indignantly at Norsen and Roland but he directed his words to the ship's doctor. "Why don't they shift crews around on these space patrols, Doc?" he asked bitterly. "It'd give a little variety; you wouldn't get to the point where just the sight of the sour faces around you would drive you to cafard."

Norsen spun around and faced him. "I got that, Bakr, and . . ."

"Knock it off," a new voice growled. "What's wrong now?" Commander Mike Gurloff came into the tiny wardroom and shot his eyes around impatiently for an empty seat. When all five of the ship's officers were present, there was hardly room to move about.

Norsen and Bakr were staring angrily at each other, but they remained quiet.

"Nothing of importance, skipper," Doc Thorndon said easily, returning his attention to his chess board. "Johnny was of the opinion that Mart had chosen too many volumes devoted to the art of cooking for the library."

Gurloff sank into a chair opposite

Dick Roland. He growled, "Don't tell me we're going to go through one of those eating binges again. What's the matter with the ship's auto-chef?"

Mart Bakr's face began to redden indignantly.

Doctor Thorndon spoke up again, quickly, "Oh, come now, Mike . . ." he was the only man on board who dared call the skipper by his first name ". . . you're usually the first to complain against the monotony of the food. Mart has scraped up some interesting alternatives to the usual fare."

"Scraped up is good," Johnny Norsen snorted sourly. "What an ambition. Dick here, studies mathematics; Doc studies his medical journals; the skipper plugs away working toward his promotion; but what does Bakr look forward to?" He pulled one of the cook books down from the shelf and opened it at random. "*Venusian Huitres en Coquille*—whatever the kерт that is!"

"All right, all right, knock it off!" Gurloff growled disgustedly. "At the rate we're going, I'll lay three to one we'll all have strangled each other before we ever complete this mission."

He turned in his chair. "We're a month out. Time I briefed you on the assignment."

Eyebrows went up in surprise. The quarrel was suddenly forgotten.

Johnny Norsen straddled a chair, facing its back, a frown on his homely face. "Thought this was just a routine scouting cruise, skipper. Something special up?"

"Should I leave, Captain?" Doc Thorndon said, coming to his feet.

Mike Gurloff shook his head. "Stick around, Doc. You've got as many space months to your credit as anybody on

board. For all I know, you might be of some help."

The captain looked at his three officers, one at a time. Johnny Norsen, second in command; Dick Roland, ship's navigator; Mart Bakr, third officer. All three of them young in years, but already old in the space service. They started them young in the space service; they had to.

He growled, "Remember that prisoner we heard about the *Pendleton* bringing in?"

"The Kraden," Mart Bakr nodded. "The *Pendleton* caught a four place space scout and one of the Kradens was captured alive."

"A major victory," Dick Roland said softly.

Mike Gurloff shook his head. "It should've been, but it wasn't."

They stared at him, uncomprehendingly.

He flicked a hand with impatience. "The hopes were that we could pick his brain, extract from him information that might have meant the end of the war eventually. Well, we couldn't."

Doc Thorndon scratched the end of his nose reflectively. "I understood they were humanoid, Captain; that their brains were similar to our own. In that case we should be able to . . ."

"That's what everybody thought," Gurloff growled. "When the *Pendleton* slid into that berth next to ours and we heard they had a live Kraden aboard, I thought it was all over but the shouting. I wondered why the Kradens hadn't outfitted their men the way we do."

"So they could commit suicide immediately upon threat of capture," Mart Bakr supplied.

"Ummmm. Well, we learned why they didn't bother," Gurloff went on. "The Kraden high command didn't have to worry about their men having their brains picked. They don't have any."

There was an awkward silence.

"I don't believe I got that, skipper," Norsen said. "They don't have any what?"

"Brains. That Kraden that was captured was a moron, hardly enough intelligence to feed himself. From what the psychotechnicians were able to determine from the bodies of the three dead ones, they had been the same." He held up a hand to silence their questions. "Yeah, I know. You think the Kradens have some method of lousing up the mental workings of their men endangered by capture. Well, that's not it. All investigation indicates that our Kraden prisoner *never* had enough sense to come in out of the rain."

"But . . . but, how could they operate a spacescout—?"

Gurloff's ugly face broke into a sour grin. "That's one of the problems we're supposed to solve on this little pleasure cruise," he said with mock cheerfulness. "We're supposed to capture some more Kradens and figure out how morons can operate spaceships."

## CHAPTER II

DOC THORNDON was lying on the bottom bunk in the ship's hospital. The room was about the size of a bedroom of a Pullman of the 20th Century. It had two bunks, a tiny folding table, a medicine chest built into the titanium alloy wall, a lavatory. The

hospital also doubled as the doctor's quarters; if he had two patients at once, he had to leave his place and bunk with the third officer—but that was seldom.

He looked up from his novel as Ensign Mart Bakr entered. "Hello, Mart," he said amiably. "Draw up a pillow and lie down." The doctor was a little, cheerful, roly-poly man, his cheeks still pink but his hair thinning and graying; he looked to be about forty-five — ancient for the Space Service.

Mart Bakr hoisted his own plump form into the top bunk, sprawled on his back and put his hands under his head. He stared up at the ceiling disgustedly.

"How're things going?" the doctor asked casually, still reading.

"What're they always riding me for?" Bakr blurted. Then, "What's a chowhound?"

"A what?" the doctor asked, puzzled. "A chowhound. The captain just told me I was nothing but a chowhound."

Doc Thorndon smiled to himself, knowing the other couldn't see him, but his voice was serious. "It's probably derived from the word *chow*, meaning food. It seems to me I read a historical novel once in which the ancient sailors called their food chow. I can't imagine how the *bound* works in; hound was a word meaning dog."

"Whatever it means, it's an insult," the third officer complained. "I don't get it. They'll insult me, complain about my books, or the special little food items I've brought along, or the time I spend in the galley—my own time, of course. But when I whip something together they're glad enough to eat it. Now that *Cerises jubile a la Callisto*

I did up for desert the other day—"

Doc Thorndon put a plump finger in his book to mark his place and spoke seriously.

"Don't let it upset you, Mart; it's really not very important. We're on a long cruise and one that doesn't seem likely to produce results. Tempers are short, nerves on edge; we're beginning to approach the enemy galaxy and will be dropping out of hyper-space. Under these pressures—and I don't pretend to explain why—men often look for a butt, a scapegoat, and when you look for a scapegoat you can usually find one. Unfortunately, you seem to be it."

Mart Bakr raised himself on his elbow and looked down at the other indignantly. "Why me?"

Doc Thorndon rubbed the end of his nose reflectively. He said slowly, somewhat placatingly, "Remember how you all used to ride Dick Roland, kidding him because navigators are almost useless on a spaceship now that we have Kadauto-pilots?"

"What's that got to do with it?" Bakr asked peevishly. He sank back into the bunk again.

Doc Thorndon allowed himself another slight smile. "You've taken his place is all, Mart. Dick saved the ship, trip before last, by pulling us out of a bad spot with his navigating. He can never be a butt again."

The third officer stirred protestingly. He started to say something, then remained quiet. He'd been one of the most biting in the way he rode Dick Roland before the navigator had proven his worth.

Doc Thorndon edged the subject toward another channel. "Things are even tighter than usual this cruise, Mart.

The SupSpaceCom has given us a task almost impossible to perform. Everybody on the ship knows it by now and it isn't doing morale any good."

"Yeah," Bakr muttered. "For two hundred years the whole Space Service has been trying to figure out the Kradens, without enough results to laugh about. Now they give us the job, expecting us to secure material that millions of men haven't been able to dig up."

There was silence for a long moment, and the doctor began to reopen his book.

Bakr said, "Just what *do* we know about the Kradens, Doc?"

Thorndon shifted his shoulders in a shrug. "As you just said, practically nothing. Until the *Pendleton* acquired that prisoner, we didn't even know they were humanoid. They seem to be approximately as advanced as we are; they're aggressive, of course, and have dominated their galaxy as effectively as man has his own. They realize, as we do, that there can be no peace between our cultures. One must eventually destroy the other to dominate this sector of the universe." The doctor hesitated. "I suppose that's about all," he finished.

Bakr was staring at the ceiling. "The boys on the *Pendleton* — I know a couple of them—said the Kradens had pictures of snakes all over their scout."

"Ummm," the doctor said, more interest in his voice now. "There's been some interesting theories advanced on that. One was that the snake is sacred to the Kradens; something like the cow to the primitive Hindus. It's an interesting speculation — that the Kradens should still be superstitious after having advanced this far intellectually."

"Yeah, but what gets me," Bakr pursued, "is that there should be snakes in both their galaxy and ours. It's one thing, that there should be snakes on all three of the inhabitable Solar System planets; but that there should be snakes endless light years away in another galaxy is a little too much."

"No stranger than that there should be humanoids in both galaxies," Thorndon told him. "One theory is that some millenia back, before the development of man, the Kradens made an expedition into our galaxy, investigating the possibility of colonization. Possibly they left some specimens of their planet's life forms, snakes in this case, on those planets which seemed potential colonies, with the idea of returning in a few thousand years to see whether or not they had been able to adapt themselves."

"Sounds pretty far-fetched," Bakr began.

A head stuck itself through the door. "Hey, Doc," the crewman said, "the skipper wants to see you right away up on the bridge. You, too, Mr. Bakr. Evidently something screwy is going on."

### CHAPTER III

DICK ROLAND and Johnny Norsen were already on the bridge with Commander Mike Gurloff when Doctor Thorndon and Mart Bakr arrived. The captain evidently hadn't said anything to either of them as yet. They stood there frowning, completely in the dark.

Gurloff growled to the two crew members on watch, "Taylor, Rosen, you're relieved, go below." In some

surprise, they got up from their stools and began to move in the direction of the door. "Just a moment," Gurloff added. "Have either of you men . . . have either of you, in the absence of the officer on watch, gone over the ship's charts?"

They both shook their heads. Taylor said, "No, sir. Orders are that—"

"I know what the orders are," Gurloff said gruffly. "Don't mention to any member of the crew that I asked you."

"Yes, sir," Taylor said, blinking his surprise. The two crewmen left the bridge, looking back over their shoulders in continued bewilderment as they went.

Gurloff turned to his officers. "This question should be superfluous," he growled, "but have any of you been in the chart locker since we took off from Calypso?" His eyes went from face to face, searchingly. He found his answer in their puzzled stares.

He said, "To my knowledge, there is no reason for any member of the ship's complement to force the lock of the chart locker and muddle through the charts of both our own galaxy and the Kraden's; but it's been done."

Roland said, "But, sir, aside from Norsen, Bakr and I, no one except you has had the training to understand a space chart. What would be accomplished?"

Gurloff turned his eyes to his navigator. "That's what I can't imagine. There's no reason for even you and I to enter the locker until we've dropped hyper-space."

Johnny Norsen said, "Maybe some crew member was anxious to find out where we were heading for this cruise. Maybe—" He dropped the idea in the

middle of the sentence.

Gurloff grunted. "We've already announced to them where we're going; besides, the crew of the *New Taos* is a carefully selected, well trained, disciplined one, not a space neophyte among them. None of them would be foolish enough to pull a childish trick like that; and, as Dick pointed out, none of them have the training to understand a chart even if they did see one." He ran a heavy hand over his shaven head, and scowled unbelievably. "This is ridiculous."

Doc Thorndon had approached the locker in question and was staring down at it. "Perhaps there's a spy on board," he said softly. He touched the sprung lock with a forefinger.

"A what?"

Thorndon looked back at the skipper. "A spy."

"What in kерт is a spy?"

The ship's doctor shrugged. "An espionage agent. In the old wars on Earth, various military groups made a practice of disguising their men and sending them into the enemy's areas. They'd secure whatever valuable information they could and transmit it to the officers of their own forces."

The captain snorted. "You and your historical novels."

Thorndon said defensively, "I was only offering it as a suggestion. What alternative do you have?"

"Whatever it is," Norsen said, "it'll have to be less romantic than that. How could a—what did you call them?"

"A spy," Thorndon told him.

"How could a spy get aboard the *New Taos*? Just before we took off, the ship went through the usual decontamination. There isn't even a microbe on



board that we don't know about."

"The further we get into this the sillier it gets," Dick Roland said. "There can't be any life form on board aside from the ship's complement, not even an invisible one. If one of the crew was a . . . a *spy*, who would he be spying for? It might be one thing having these espionage agents among each other's forces during the little wars back on the surface of Earth; but in a war between galaxies, between alien life forms . . ."

Mart Bakr stirred. He said, "Dick's right. How would a Kraden go about communicating with a human in order to make a spy of him; how would he get through our defences to make the approach? What could you possibly offer a human to betray his race?"

Doctor Thorndon turned back from his inspection of the chart locker. "We're carrying this whole thing to the extreme," he said. "Captain, I suggest that we question the crew members one by one, in the hospital. We'll probably find the answer to this puzzle very simple."

Gurloff grunted. "Whoever's guilty, probably was pilfering. Perhaps he thought there might be something of value in the locker, although how the makron expected to smuggle anything he stole off the ship is a mystery. Anyway, whoever did do it would just lie —" He broke off, and shot a quick glance at the ship's doctor. "I see—you have narco-scop."

Thorndon nodded. "There's a supply of truth-serum in the ship's medicine chest, Captain."

Gurloff came to a quick decision. He motioned with his head to Johnny Norsen. "Take over the details, Lieutenant.

Have the crew come to the ship's hospital singly, at ten minute intervals."

The crew members filed in one at a time and Gurloff and Doctor Thorndon received them identically. The doctor had quickly injected each with five units of narco-scop; they'd waited the full minute for it to take effect, and then Commander Gurloff had said, "Did you investigate the contents of the ship's chart locker?"

They had worded carefully the question to be asked, avoiding the outright accusation of attempted pilfering, or an attempt at espionage. There was enough resentment developed on a year long cruise without antagonizing the crew.

Spillane, "No, sir," in surprise.

Woodford, "Who me? No, *sir!*" indignantly.

Taylor, "No, sir, like I already told you on the bridge—"

Heming, "I'm a cook, sir, never been on the bridge. What's a chart locker? . . . Yes, sir, I'll answer the question. No, sir, I didn't break into no—"

Rosen, "No, sir, I didn't," emphatically.

Forty men came and went. Johnny Norsen finally stuck his head through the door. "That's all, skipper. Who was it?"

Commander Mike Gurloff stared at him for a long moment.

"Call Bakr and Roland, Lieutenant," he said finally, beginning to bare his own arm. Norsen's angular face showed its surprise, but he withdrew.

Doc Thorndon wordlessly dabbed his antiseptic on the captain's arm and quickly slipped the needle home. He paused for a long moment, then asked, "Commander Gurloff, did you break

the lock on the ship's chart locker?"

Mike Gurloff stared at him. "No," he said, "no, I didn't."

Doc Thorndon slipped the needle into his own arm, expertly, while Gurloff looked on, his face a mask.

Finally, the captain said, "Doctor Thorndon, did you investigate the contents of the ship's chart locker?"

"No."

They sat there wordlessly, until the three other officers appeared.

"What goes on?" Dick Roland queried.

The doctor was preparing his needle again.

"Roll up your sleeves, gentlemen," Gurloff growled.

Johnny Norsen blinked. "You mean you haven't found the man yet?" He scowled. "What the kерт, skipper; none of us would *have* to break into the chart locker. If we had any reason to get into it—" He broke up short, then, "You're right, we've *got* to know."

Doc Thorndon rapidly injected the three of them.

Gurloff said, "Lieutenant Norsen, Lieutenant Roland, Ensign Bakr, did you break into the chart locker?"

They said, "No," together.

Gurloff sat for a long moment in silence. Finally he looked over at the ship's doctor and growled, "Is there any chance of that stuff being ineffective?"

Thorndon shook his head. "No chance, Mike. Narco-scop *always* works." He scratched the end of his nose reflectively. "There's a spy on board, skipper."

Mike Gurloff shot a disgusted scowl at him, and didn't bother to answer.

Mart Bakr said hesitantly, "Sir, Doc has to be right. If it's none of the men,

and it's none of us—it has to be an outsider."

"How would the makron get on board," Johnny Norsen snorted. "You know the set-up. Every ounce on a spaceship is accounted for. On top of that, just before the crew embarks, the craft is decontaminated; there's not a germ on board unknown."

Bakr insisted. "If it isn't a member of the ship's complement, it has to be an outsider; there's no alternative."

Mike Gurloff got to his feet and turned to leave. His face was expressionless.

As he reached the door, he slowed. Without looking at them he said, "Norsen, Roland, Bakr—I want this ship gone over microscopically. I want to know from every department, from jet-room to galley, if anything, *anything at all*, is out of line. Get to it immediately!"

## CHAPTER IV

**T**HE third meal of the twenty-four Earth hour period, had been a glum one.

Commander Mike Gurloff poked at a dish a messman sat before him with his fork. "What in kерт is this?" he growled.

"*Souffle a la vanille*," Mart Bakr said proudly. "First you take three—"

Gurloff silenced him with a glare. "When did you have time to throw together this mess? I'll lay you three to one that instead of following my orders you wasted your time playing around with these fancy dishes of yours."

Bakr's plump face showed indignation. "No, sir. We split the search three ways. Norsen took the engine

room and everything connected with the ship's propulsion. Dick took navigation and the ship in general. I took the galley and the ship's stores; we figured I knew more about—"

"All right, all right," Gurloff growled. "So your method of investigating whether or not there might be an alien on board was to whip up a . . . a . . . what'd you call it?"

"*Souffle a la vanille*," Bakr told him. "I just sort of tossed it together while I was going through the galley stores. You take three—"

"Forget about your souffle!" Gurloff roared. "Did you find anything wrong?"

"The sodium glutamate was all gone," Bakr said indignantly.

"The what?"

"The sodium glutamate. I don't see how in the name of Wodo I'm going to be able to turn out a decent—"

"What is sodium glutamate?" Gurloff asked ominously.

Dod Thorndon stirred in his chair and rubbed the end of his nose reflectively. "That's funny," he murmured, then to the captain, "Mono sodium glutamate. It's a seasoning; a vegetable protein derivative that brings out the natural flavors in almost all foods."

"Well, what's funny about it?"

Thorndon said, "Evidently, the Kradens use it as well as ourselves, Mike. There was a fantastically large supply of the condiment on board the scout that the *Pendleton* captured."

Mart Bakr was interested. "What do you mean, 'a fantastically large supply'? I'm strong for the stuff myself; I think it ought to be used more than it is."

Thorndon looked at him. "Almost a quarter of the entire food supply on

the Kraden ship was mono sodium glutamate."

"Listen," Gurloff said impatiently. "Let's forget about this glutamate stuff. Was anything else missing in the ship's stores, Bakr?"

"No, sir," Mart Bakr told him, still frowning.

Gurloff turned his gaze to Roland. "How about the navigating equipment, Dick?"

Dick Roland ran his right hand down over his cheek and his chin, as though checking to see if he needed a shave. "It's hard to put your finger on it definitely, skipper; but I have a feeling that the Kadauto-pilot has had a complete going over." He scowled. "I couldn't prove it, maybe I'm wrong."

Johnny Norsen had remained quiet through all this, listening thoughtfully. His angular face wore the same uncomfortable expression as did the others. He said slowly, "I was going to report that nothing seemed out of the way in the engine department, Captain, until I heard what Dick just said now. There's nothing that I can put my finger on, but I have the feeling that some makron has been going over our equipment."

The five of them sat quietly for a long time. There was an uncomfortable feeling that something was badly wrong; but none of them knew just what it was.

Already sure of his answer, Gurloff said in a low voice. "None of you were able to locate any living . . ." He didn't even finish the question.

His three officers shook their heads.

The messmen had cleared away the remnants of the meal by now, but no one made motion to leave.

Doc Thorndon was tracing out pentagrams on the table cloth with the blunt end of his fork. He said finally, "Mike, have you considered returning to our own galaxy, giving up the cruise?"

The four others stared at him, questioningly.

"Why?" Gurloff growled. "What in kerr's the matter with you, Doc?"

The other pointed at him with the fork. "Because something is going on here that we don't understand, Mike; something that might be dangerous. The SupSpaceCom should be notified. If anything happened to the *New Taos* on this cruise, they'd never know about this mystery, and they should know. I've got a feeling this is of more importance than the cruise we're on."

Mike Gurloff looked unseeingly at his now empty coffee cup. "It isn't as easy as all that, Doc. From the first, I beefed about this assignment; I tried to argue them out of it. In the two centuries we've been fighting the Krakens, we've only captured that one the *Pendleton* got, and that was by a fluke. Why in the name of Holy Jumping Wodo, should we be expected to be able to capture more of them—just like that?"

"That's what I'd like to know," Johnny Norsen said, complaint in his voice.

"Well, I'll tell you why," Gurloff growled, looking across the table at his second in command. "It's because there's still politics in the space service; there's still too many brass hats out for their own good. They've been miffed at the success of our last few scouting expeditions and at the build-up the *New Taos* has been getting in the civilian press. They're afraid that public

opinion will force them to promote me to a command that they'd rather keep in their own hands."

"I don't believe I'm following you, skipper," Roland said.

Gurloff shrugged in impatience. "Simple enough. We've been sent off on a long cruise that can't possibly succeed. They've killed two birds; I'm out of the way for a year, and, when I do return, it will be with a report of failure."

They stirred uncomfortably. It wasn't like the gruff Mike Gurloff to let his defenses down like this. They knew his complaint was justified; he'd been kept from a well deserved promotion for a considerable period. Inter-service politics was the reason.

Doc insisted. "Still more cause to return, Mike. You've got a good reason for turning back. We'll cut the cruise short by more than half."

Mike Gurloff came to his feet, preparatory to leaving the wardroom. He shook his head at the doctor. "What reason, Doc? If I went back now and reported some 'mysterious' spy, they'd want to see it. They'd want more proof than we have at present. I'd be raked over the coals but good; any reputation I've built up over the past ten years would be gone over night."

He shook his head again. "I agree with you, Doc. Something is off course on the *New Taos*. We should return and report—but we can't." He took a deep irritated breath.

Mart Bakr muttered, "I still can't figure out what happened to all that sodium glutamate. A man won't be able to cook up a reasonably good—"

Mike Gurloff whirled, his temper boiling over in a sudden reaction

against the situation confronting him. He pointed a shaking finger at his third officer. "Listen, Mr. Chowhound," he roared. "Get your thoughts out of that galley, and back to your own duties and responsibilities. The steward department can handle the ship's cooking. From now on, stay out of the galley. That's an order, Mr. Bakr!"

He turned curtly and strode from the room.

Mart Bakr looked around at the remaining three, a hurt look on his round face. "What'd I say?" he complained.

Johnny Norsen grunted at him disgustedly.

## CHAPTER V

AS the next three weeks went by, there were continued evidences that something was wrong on the *New Taos*. A report here, a report there; nothing you could *exactly* put your finger upon; but indications that all was not routine.

An uncomfortable tension grew.

In the beginning, the ship's officers alone were familiar with the suspected presence of an alien; but as time went by, the crew slowly compiled its own evidence. Something was wrong, and soon even the most lowly messman knew it.

Tension grew.

A small delegation from the ship's crew went to the captain finally, asking for information. He stared at them for a long silent moment and finally told them that he didn't know what they were talking about and to return to their duties.

And that hadn't helped either.

It was in this atmosphere that Mart Bakr drifted into the ship's hospital. Doc Thorndon was lying on the bottom bunk, seemingly reading a novel; he'd been on the same page for the past half hour, going over it time and again, unknowingly.

Bakr said, "Hello, Doc, can I come in?"

There was just a slight hint of irritation in the usually cheerful voice. "Certainly, Mart; draw up a pillow. What's on your mind?"

The third officer hoisted his plump body into the top bunk, sprawled on his back and put his hands under his head. He stared up at the ceiling. "Nothing. They've been riding me again; I'm getting fed up with it, Doc. All I said was that I knew a place on Venus where they had the best salads in the solar system. You'd think I had tried to destroy the ship."

He paused a moment, then went on. "Why is it that some people are impatient of the art of good cooking. They sympathize with the artist who paints and pleases the ear; they can understand persons who love the smell of flowers or rare perfumes. But for some reason or other they think anyone who makes a hobby of pleasing the palate, is below respect."

Doc Thorndon said, "Possibly you'd better knock off talking about this hobby of yours, Mart. There's enough potential space caford on this ship without you irritating everyone."

The third officer had caught the sharpness in the other's tone. "How do you mean, Doc? Are things any worse than usual? What the kерт, there's al-

ways danger of space cafard on a long cruise like this; that's the big reason for having a ship's doctor along."

"Well, it's worse now, especially among the officers. This spy—if we can call it that—aboard is driving everyone to the borderline. The more mysterious it gets, the more jittery we become and cafard is a disease of the mind. Commander Gurloff is particularly bad. So bad that I don't believe I'll even tell him the latest development."

Mart Bakr got up on one elbow and looked down at the other. What's happened now?"

"I'm sorry I said that," Thorndon answered. He waited for a brief period. "Someone broke into the hospital a few hours ago and got into the medicine chest."

"Broke into the hospital?"

Doc Thorndon threw his novel to the floor in irritation. "Not exactly broke into it, but *got* into it. I had been checking my supplies earlier. When the call came for dinner, I carefully locked the door and left. When I came back there was something gone."

Mart Bakr slid down from the bunk and looked around the small quarters wide-eyed. "That's impossible! The only entrance is the door and you're the only one with a key."

"That's right," Thorndon muttered. "But I'm not mistaken. The door *was* locked; I was gone possibly an hour; when I returned there was something missing; I have the only key to the ship's hospital. If you can find an answer to this, you're welcome."

Mart Bakr continued to run his eyes around the tiny room. "What was gone, Doc? This is crazy."

"Something that wouldn't ordinarily have been in my chest. I'd brought it along for possible experimentation after I'd heard about the *Pendleton's* capture of the Kraden ship. It was a quantity of mono sodium glutamate."

"Sodium glutamate!"

"That's right," Thorndon said impatiently. "The same condiment that has disappeared from our ship's galley. My supply has been stolen from a locked room."

Bakr slumped down on a chair.

Thorndon reached over and picked up his novel again. Telling of the impossible incident hadn't made it less irritating to him.

Mart Bakr muttered, "Sodium glutamate. It's crazy. It doesn't fit at all." Almost as an unconscious afterthought, he added, "We sure could have used some in that stew we had for dinner."

Doc Thorndon sat up erect, his eyes sparkling. "Get the kert out of here, Bakr! Isn't it *possible* for you to think of anything but food? The ship has some mysterious enemy aboard; we've been sent off on a wild goose chase; every man of the *New Taos* is on the verge of cafard. And what do you think about? Food!"

"All right, Doc," the plump little third officer said placatingly. "I was just about to tell you of a theory of mine. I'm sorry."

Thorndon slumped back into a reclining position. "Just don't bother me," he snapped. "I've got enough on my mind without hearing you complain about the stew we had for dinner."

Mart Bakr turned slowly to leave. "See you later, Doc," he said tightly.

There was no answer.

## CHAPTER VI

COMMANDER MIKE GURLOFF stared down at the plate before him. "What in kерт is this?" he growled. He took up his soup spoon and tried it. His face went expressionless. He put the spoon down and said softly, "The ship's auto-chef never turned this out."

Mart Bakr said, "I cooked it up, skipper."

The eyes of Thorndon, Roland and Norsen went first to the third officer, then to the captain.

Gurloff's neck began to go red; he clenched a hand tightly. His voice was quietly ominous. "Mr. Bakr," he said. "I gave you direct orders not to spend your time in the ship's galley. I assume you have a reason for this violation? I assume you have a good one, Mr. Bakr; one good enough to prevent your reduction in rank to ordinary spaceman."

Mart Bakr wet his lips. "Yes, sir."

"Yes, sir, *what?*"

The third officer came to his feet, and touched a stud on the wall. "I have an explanation, sir. I think it's a good one . . . I just cut in the intercompartment communicator," he said. "This is going all over the ship. To the men in their mess hall; to the four jetmen on watch in the stern; to the three non-coms on the bridge and to the half dozen members of the steward department in the galley."

"There are some strange things that need explaining," he said. "Things like the fact that that captured Kraden was a moron; that there was a fantastic amount of sodium glutamate among their food supplies, an amount far and beyond a normal ability to use it; that

there is a spy aboard this ship, but that we can't find him. It all ties in with the fact that the *New Taos* berthed next to the *Pendleton* just before our take-off."

"Get to your point; your reason for disobeying a direct order, Mr. Bakr," Mike Gurloff snapped.

"I'm coming to it, sir," the third officer said. "It's tied in with the fact that the Kradens had their ship ornamented with what looked like snakes to us, sir."

Johnny Norsen grunted, "Doc, you better take over; he's coming down with cafard. He's snapped."

Bakr shook his head. "Where we made our big mistake was in believing that that moron the *Pendleton* captured was a Kraden. He wasn't. We were too conceited, being humanoid ourselves, to realize what he really was."

Dick Roland said. "I think Norsen is right, skipper. Poor Mart has cracked. Doc—"

"Listen, listen to me," Bakr said urgently. "That moronic humanoid wasn't a Kraden."

"All right," Thorndon said softly. "What was he, Mart?"

"He was, well—a beast of burden."

The doctor came to his feet. He said in a quiet tone, "We'd better go to the hospital, Mart."

Bakr shook his head again, emphatically. "Listen for just a minute. The real Kradens are symbiotes. On their planet life evolved differently than on our own. The outstanding difference is in the fact that on Earth man forged ahead of the rest of Terran life forms because he had both the hand and the brain. On the Kraden planet this didn't apply. There was a humanoid life form but it was moronic; there was a highly

intelligent life form, but it had neither sufficient strength nor suitable limbs to wield the tool—in fact, it looks like our Terran snakes, considerably so."

They were listening now. Not believing, but listening.

He hurried on. "The Kradens—the snake-like life form—had another quality besides intelligence. Their bodies were developed—I'm guessing now—from virus cells rather than our own larger protozoan-type. They are, in short, able to practice symbioticism. They can change their shape to almost any form and they can enter into the bodies of our type of animal, and, through the ages, they have evidently learned to control the animals they enter. What we thought were Kradens, were nothing more than *beasts of burden*; probably deliberately bred for this physical attribute and that, but with minds kept moronic."

He let his eyes go around to them, one by one.

"At least one of these creatures managed to leave the body in which he'd been dwelling and get to the *New Taos* where he has unbeknown occupied various hosts—our own bodies. He had probably drained from those bodies he has occupied all the information he could accumulate; probably changing from one to the other while we slept. He has done everything possible to learn that which could be of interest to the Kraden high command, because eventually he intends to betray the *New Taos* to the enemy when we are in their galaxy. We are now within hours of leaving hyper-space; when we do, he has planned to make his attempt."

Mike Gurloff hadn't taken his eyes from the third officer during this long

monologue. Now he said slowly, "You were going to tell us why you deliberately disobeyed my orders and," he motioned to the plate before him, "cooked up this fancy-flavored soup."

Mart Bakr said, "Yes, sir. You see, everybody on board has had some of that soup, Commander. I deliberately made it of an ingredient that—"

Mike Gurloff barked. "What in kert did you put in this concoction, Bakr!"

Bakr said, "One of the special tins I brought from a store specializing in obscure foods, Captain. I had expected to experiment with it myself; but this occasion was—"

"What was in that soup?"

"Rattlesnake meat, Commander. Earthtype rattlesnake meat."

Johnny Norsen made a strangling, eerie sound. A reddish, mucous like substance, nauseating to see, began to ooze from the back of his neck, from his ears, and even from his nose, mouth and eyes.

\* \* \*

Three hours later, a three hours that had been packed with activity, Mike Gurloff, Dick Roland, Mart Bakr and Doc Thorndon gathered again in the wardroom. The *New Taos* was on its way back to its home galaxy; Johnny Norsen was resting in the ship's hospital under the influence of a narcotic; and the Kraden was confined to an improvised prison in which it was hoped he could be kept alive until Earth's scientists were able to work on him.

They relaxed with pleased sighs of exhaustion.

"Well, skipper," Roland said, "it's all worked out. The cruise has been successfully complete in a third of the



# THE MOST DANGEROUS LOVE

by PHILIP LATHAM



The kid had no time for girls; he was too busy with his scanner. Which should have given him a perfect constitution for high-space flight. . . .

HE was a fine, upstanding lad of about twenty-four with a straightforward manner that made you like him right away. He didn't waste time telling me what a great guy I am, or how I'd been his boyhood hero ever since I made that first roundtrip to

Pluto fifteen years ago. Instead he spread some blueprints on my desk and got down to business immediately.

"My name is Sidney Schofield. I've designed a scanner that's got anything beat in a spaceship today. You don't have to take my word for it, Captain

Harker. I can prove every statement I make. All I want is a chance to demonstrate it under working conditions."

I gave him block diagram a casual glance. "In the last six months I've had a dozen scanners shoved at me, all guaranteed to be world beaters. So far I haven't seen one that's got anything over the scanner that's in the *Del-S\** right now, and it's nearly ten years old."

The boy didn't look in the least abashed. "What's your maximum amplification?"

I considered awhile. "That depends on conditions, of course. Whether the solar noise happens to be bad or you're oriented in the direction of a radio star. On the average I'd say about ten to the tenth is all that's practicable."

"My amplifier is good up to ten to the fifteenth."

I just laughed at him. "You couldn't keep set on an object with an amp of ten to the fifteenth."

He pointed to a box on his diagram. "That's where this gadget comes in. I call it my space transformer. First you set on the target under low power and get its x, y, z coordinates with respect to your ship. Then you switch in the space transformer. That automatically couples you into an invariant system fixed in the Milky Way. After that you can step up the amplification all you want and you still stay on target."

I studied the diagram for several minutes. "How long would it take to set up this scanner of yours in a ship?"

\*My spaceships are all named after the vector functions used in mathematical physics, such as the *Div-X*, the *Grad-R*, etc.

"Not very long for a demonstration run. About an hour maybe."

"Come along," I told him reaching for my hat. "We'll give this thing a shakedown right now."

Well, there was no question about it. The scanner did all he claimed for it and more besides. We went out a couple of million miles and I told him to get me the control tower on Mount San Jacinto. First he picked up an area about the size of California. Then he started amplifying in steps of ten. In less than five minutes by my watch he had Clara Spencer, the girl at the instrument panel, square in the center of the concentric circles on the scanner. For once in my life I broke a rule and got a little enthusiastic.

"What I'd like to know is what's the matter with this thing? What's holding it back? Why isn't it tied up already?"

He explained that it was rather expensive to build and that he'd had the usual trouble getting capital interested in a new venture. But he had figured that if he could get it adopted on the *Del-S* for the first interstellar space flight its future was assured.

"We're leaving in ten days," I told him. "If you can have your scanner set up and operating by the end of the week all right. Then you'll have to leave full instructions together with replacements in case anything goes wrong. And remember that we'll be gone for two years at least."

His mouth set. "Then I'm afraid the deal's off, sir. You see my machine works on a somewhat different principle from the standard sets like the one you have here. It would take quite a while to show anyone how to run it."

expected time. A Kraden has been captured; the secret of their life form, revealed. Your reputation will skyrocket when we get home."

"You mean Bakr's will," Gurloff grunted. "I'm going to see he gets full credit." He looked at his third officer. "I still don't understand it all. How did you figure it out, Mart. How'd you know the Kradens were symbiotics?"

"I don't know," Bakr said uncomfortably. "It was just that nothing else fit. Morons don't crew space ships; and no life form with which we were familiar could have possibly done the things the Kraden did on this ship. I don't understand *all* of it, either."

He wrinkled up his plump face in thought. "I guess it was the sodium glutamate that really did it. We had been thinking in terms of it being used by the Kradens in the same manner in which we utilize it—as a seasoning. But it was obvious that that was impossible; you couldn't conceivably use that much. When the large amounts disappeared here on the *New Taos* it came to me. It's a *condiment* for us but a *food* for them. That immediately made it obvious that the Kradens were a life form different from ours. We could find no trace of it, no evidence of its weight, so the only place it could be was *inside* one of us."

"Yes," Roland said, "but how did you know that its host's eating snake meat would so horrify it that it would come out?"

Mart Bakr shrugged. "I didn't. But as soon as I came to the conclusion that they were symbiotics, I decided they must look like snakes in their natural form. That would explain the snake motif all over their spaceship. Doc

pointed out to me some time ago that it's believed that the snakes on the solar system planets were the remainder of a Kraden attempt to colonize hundreds of thousands of years ago. Evidently, they weren't able completely to adapt themselves to earth since they have degenerated and changed tremendously. Earth snakes are still, however remotely, related to the Kradens. I was gambling that they would be as revolted as we at the idea of cannibalism."

Doc Thorndon said thoughtfully. "That colonization theory is an interesting one; have any of you considered that it explains the presence of mankind on Earth? The Kradens came to Earth with their *beasts of burden*. Over the centuries the Kradens degenerated but the beasts of burden, man, developed until he eventually controlled the planet—and later, the galaxy."

Gurloff growled contentedly. "The real luck was in the fact that you had that can of rattlesnake meat, Mart. It seems to me I read somewhere once that a few gourmets like the stuff; but what a coincidence that you had brought along some to try on this cruise."

Mart Bakr grinned at him. "What the kerk, skipper, I didn't really use rattlesnake meat in this soup; I just concocted up a mess that would taste funny. Who'd know the difference?" He took up a spoon and sampled the long cold soup which still sat, half consumed, on the wardroom table.

"Hub," he said thoughtfully. "This isn't really so bad at all. Now if I just had some sodium glutamate to put in it . . ."

Mike Gurloff barked out a brief laugh. "You damn chow-hound!" he growled affectionately.

This immediately put a different aspect on the situation. But I liked the way he put it up to me squarely without trying to hedge or appeal to my sympathies in any way. Yet taking a new untried man on an expedition as big as this one was a serious proposition. But I sure did like that scanner.

"Tell you what I'll do," I said. "You come down to the office tomorrow morning and see our space surgeon. Tell him to give you a thorough once over. If you pass okay then you and the scanner go along. But I'm warning you, if the report isn't satisfactory that ends it. And no postmortems afterward."

"That's very kind of you, sir. And I want to thank you for giving me such an opportunity. I realize how much you have at stake and I certainly wouldn't want to be a handicap in any way."

I was nosing the *Del-S* down through the F-layer when I remarked casually, "Two years is a long time to be away from home and friends. Especially the girl friends." I gave him a look out of the corner of one eye with just the suggestion of a wink. But he never smiled or made the sort of cracks a lot of young chaps would.

"There's only my father to care for and my older brothers can look after him. As for girl friends . . . Well, I've been too busy working on the scanner to have any."

He took hold of one of the dials on his machine and began turning it absently. But I was too busy with the controls at that moment to pay much attention.

Two days later the Doc dropped into my office. It was rather unusual for him to pay me a personal visit.

"Well, I had a look at that young man you sent around yesterday," he said, laying a long official looking gray envelope on my desk. "You'll find the complete report in there. In triplicate."

"You gave him the works, eh?"

"Up to an equivalent of seventy c\*. That's as high as we're equipped to go."

"Seventy c!" I gasped. It was with a sense of shock that I realized I'd only been over seventy c half a dozen times myself. "How'd he stand it?"

The Doc lit a cigarette, inhaled deeply. "Frankly, I can only recall three cases in my entire professional experience that reacted so splendidly. I should say that young man has a constitution as admirably adapted for high-c space flight as you're ever likely to see." He looked at me inquiringly. "I've often wondered how you're able to spot them."

"You develop a knack for it after-while," I said easily. "A combination of experience and a natural gift."

I took the report from the envelope and began leafing through the pages without actually seeing them. "Incidentally, how'd he do on the personality part? I should say he's a pretty lusty specimen of manhood. Some of these young bloods that score so high on their physical don't always hold up so well on long flights as the steadier middle-aged type."

The Doc frowned slightly. "We found a strong potential sex drive there, that's true. Boy wouldn't be

\*70 per cent of the velocity of light, c.

normal if it wasn't. But taking everything into consideration I'd say you're entirely safe on that score."

"Well, I'm glad to hear it, for to tell you the truth I was hoping he'd come through all right. He's designed a scanner that's really a marvel. Says he's been so busy working on it he hasn't had time for the girls. It's my experience that's always a good sign."

The Doc smiled and nodded. We both agreed it was always a good sign.

\* \* \*

I won't bore you with an account of the last-minute preparations for the first interstellar space flight or the takeoff itself. By the time we were finally clear of the Earth I heaved a sigh of relief along with the rest of the crew. The worst part about these big epoch making space binges is the official leave taking. Every little politician along with his wife and brother-in-law has got to shake you by the hand and get his picture taken wishing you bon voyage. The hell of it is that when you're dependent upon them for cash there's nothing you can do but grin and bear it.

Our destination was Parkhill 343. It sounds like a telephone number but in reality it's the 343rd star in Parkhill's catalogue of parallaxes. The old boy had labored for thirty years on that catalogue and done a magnificent job of determining stellar distances. The one regret of his life was that he'd never uncovered a star closer than Proxima at 4.3 light years. And then one day while he was blinking some plates for proper motion he ran across one that jumped so far he thought at first it must be a flyspeck instead of a star. But it was a star all right with a

proper motion twice that of Barnard's or 21" a year. Within two years with his new electro-interference method he had a reliable value for the parallax —3."8948 or 0.837 light years, which was well inside the cruising range of the *Del-S* or even the old *Div-X*. I put in a bid for the contract and with the record of that Pluto trip behind me there was never any doubt as to the result.

Once we were out of the solar system in real space I stepped up the velocity to twenty c. I kept a close watch on the crew to see how they were taking it. They were all old hands and had had a stiff physical from the Doc and his staff. Nevertheless, it's always a good idea to make sure before you're too far out to turn back. When no one exhibited any untoward symptoms I ordered the speed stepped up to sixty-five c and held there. At that rate we should reach Parkhill 343 in 470 days as reckoned by a stationary observer from the Earth.

And now the tough part of sitting around waiting for time to pass. I have often pondered over the horrible consequences of taking a bunch of women on a long space flight. By the end of the first day they'd be squabbling over who got to use the bathroom next. By the end of the first week one half wouldn't be speaking to the other half. And by the end of the first month . . . Well, I have a pretty good imagination but it has its limitations.

But here was where my crew showed what personality selection tests can accomplish. Nobody grew restless. Nobody whistled under their breath or kept repeating the same word over and

over. Nobody developed a grudge against somebody else. Instead they sat around all relaxed, reading, studying, or playing cards in a nice easy friendly fashion.

By the end of 400 days rest time Parkhill 343 was 0.123 light years away and still too faint to be seen by the naked eye. I've forgotten to mention that this star is white dwarf about the size of Mars although it's fully as massive as the sun. Naturally it's extremely faint or otherwise it would have been discovered years ago.

We were lying around feeling pretty bored with ourselves when Sid called to us.

"Come here," he said, all excited. "I think I've found something."

We gathered around his scanner in a minute. He evidently had the magnification turned way up for the image was badly blurred from free-free and bound-free electron transitions. Jumping around on the screen was an object resembling the crescent moon.

"What you got there?" Shorty, the assistant navigator, asked.

"It's a planet revolving around Parkhill 343," Sid replied, trying to keep the pride out of his voice over his discovery. "I think it must be very close to the star for it moves so fast it was hard to pick up."

"Got any idea how big it is?" I inquired.

"I estimate it's roughly the size of the Earth. It appears to have a rather dense atmosphere judging from the gradations in the markings along the terminator."

"Think it's inhabited?" said Shorty.

Sid laughed. "It's a little early to tell about that yet, Shorty. Give me

some more time and maybe we'll see."

One of the biggest disappointments when space travel came in was the fact that none of the planets disclosed the exciting forms of life people had so long anticipated. Venus turned out to be a barren wind-swept inferno and Mars showed only low forms similar to those on our own high altitude deserts. But anything was possible on an interstellar planet. Shorty's remark started a discussion that went on for days. The crew got up a pool based upon the number of days till Sid detected definite signs of life. Every number cost a day's wages and you could take as many numbers as you wanted. It provided a fine diversion just when we were all feeling kind of low.

By the end of 440 days Parkhill A, as we called the planet, was beginning to show detail in the scanner somewhat like that in the southern hemisphere of Mars. The disk was a deep blue tint probably due to scattering in the upper atmosphere. Then one day when the static was especially low Sid picked up something moving on the surface. Was it a machine? Or an animal? Or one of the inhabitants? It took another five days to find out. The planet was inhabited all right and what is more by people *like us*. It was too unutterably incredible to believe at first. Here we had travelled 4925 billion miles across space only to find people moving around on the surface of another world who had every appearance of being—not merely similar—but absolutely identical in every respect with human beings.

We were twenty days out when Sid first picked up THE GIRL. I happened

to be the only one nearby when she came in. For a moment the boy sat there staring at her as if completely fascinated. Then he came to life and hurriedly jotted down her x, y, z coordinates so he could be sure of finding her again. She was about nineteen years old, I should say, with big brown eyes and masses of soft dark hair falling around her neck and shoulders. Pale interesting complexion. Dressed rather severely, I thought. She appeared to be seated in some sort of control room before an instrument panel.

"Nice looking girl," I commented, coming over closer.

"Yeah," Sid muttered, "not bad." He switched onto something else immediately. I got the impression that he wasn't too happy about having me looking over his shoulder.

I went into my record office and began making entries in the log. I noticed that as soon as I moved away Sid went back to the girl again and never left her for an instant. His eyes had a fixed glassy look that boded no good for the future.

Sid began keeping more to himself after that. He could only use the scanner for an hour a day owing to power limitations. But every moment of that hour was spent on the girl. When he couldn't use the scanner he lay in his bunk or sat gazing ahead out of the window at Parkhill 343 which was visible now. I knew what was going through his mind but didn't say anything. Like anybody in love he wanted to be left alone with the object of his affections.

Soon the boy began to look so pale and wan it was impossible not to notice it any longer. When you spoke to him

he glanced up at you with a start as if he had never seen you before. I felt sorry for him and I think the rest of the crew did, too. For a person in love is a person who is not quite sane. And Sid was in love the worst way possible. He was desperately in love without being able to do anything about it.

When we were only five days out from the planet Sid came to me and asked if he might have a word in private. I motioned him into the record room and shut the door.

"All right," I said, "what's on your mind?"

He had a hard time getting started. "I don't know whether you've noticed it or not but I expect I've been acting a bit strangely lately."

I kept a perfectly straight face. "Well, to tell the truth, I had noticed you seemed a bit absent-minded at times but then I didn't think much of it. On a long trip like this little personality traits often become unduly accentuated."

"It's Sapphira," he said. "I'm in love with her. I never supposed a thing like this could happen to me."

"Let me see now," I said, wrinkling my forehead. "Sapphira? I don't seem to recall that name somehow."

"Oh, I don't really know her name at all, sir," Sid added hastily. "Sapphira's a name I made up for her. From the color of the planet, you know. It's such a wonderful deep sapphire blue."

"I see. Very appropriate indeed."

He sat on the edge of his seat twisting his hands. Obviously there was something he wanted to tell me but didn't know how to get it out. Then he

began speaking in a low monotone, the words pouring out in a stream as if he had repeated them to himself many times before.

"I'm in love, Captain Harker. Terribly in love. I can't eat or sleep anymore. I can't think. I've got to get out of here. I've got to get out of this damn spaceship. I'll never know rest or peace until I can get to her and hold her tight in my arms." His voice had a thin high edge to it I didn't like.

"You wouldn't be going hysterical on me, would you?" I asked him coldly. "Because if you are you can stop it right now." There's only one way to handle an hysterical case and that's never to show 'em any sympathy.

He sat up and tried to get hold of himself.

"That's better," I said. "Now what was it you wanted to know?"

"It's simply this, sir. I can't live without Sapphira. She's absolutely everything to me. If I ever thought for a moment that we would never meet—that it was impossible for us to be together—it would tear me to pieces. I don't know what would become of me."

"There's one thing that's been puzzling me," I interrupted. "How do you know that . . . er . . . Sapphira shares your feelings in this matter? Maybe she's got a boyfriend on Parkhill A already."

"Oh, that's all settled," he assured me. "You see, she's able to pick us up on her own scanner. We can't talk back and forth so very well yet but she feels exactly as I do." He paused and said very gravely. "We feel in our hearts that we were meant for each other since the beginning of

time and that it was fate that brought us across space together."

I know that it sounds awful when you write out a statement like that but Sid said it so sincerely that you didn't dare smile at him.

"Well, that's just fine," I said, "but it still isn't quite clear to me what you wanted to know."

He looked at me beseechingly. "Can Sapphira return to Earth on the *Del-S* with me?"

I shook my head very, very slowly. "I'm sorry but that is impossible. One girl—especially a girl as attractive as Sapphira—would be one girl too many aboard this spaceship. Even with a crew as reliable as mine."

"Then I'll have to stay behind. I can't return to Earth without her."

"Staying on a world nearly a light year from home is a serious business," I told him. "Even if the people do seem pretty much like those back in Pasadena. But after all you came on this trip as a guest investigator and not as a member of the crew. If that is your decision I won't attempt to interfere."

"Thank you, sir. My mind's made up but I wanted to talk it over with you first. I had to tell someone."

He gave a startled glance at the chronometer on the wall behind me. "Oh, gosh, it's almost time for Sapphira!" He began adjusting his necktie and smoothing down his hair. I got up to leave but Sid caught my arm. "I'd like for you to see her this time. Then maybe you'll be better able to understand how we feel."

We sauntered down to the corner where Sid's scanner was located trying to act as casual as possible so as not

to attract the notice of the crew. We needn't have bothered," however, as Shorty had just filled a straight flush making him the undivided center of attention at the moment. Sid switched on the scanner and began amplifying. Gradually the shifting masses of color began to solidify and harden. Then abruptly the image came in sharp and clear and there was Sapphira as if she were not five feet away.

The sight made me catch my breath. She had been lovely before. Now she was positively radiantly beautiful. They say a girl looks prettier when she's in love and it certainly worked that way in Sapphira's case. There was an aliveness and vibrancy about her that had been missing before, an eager expression in her eyes. Her costume was more becoming as well as being considerably more revealing. In fact, I'd say that she was about the most luscious looking bit of femininity I'd ever seen. I began to envy Sid that first night on Parkhill A.

I noticed how her face lit up the instant our image came in on her screen, although she appeared a bit taken aback when my features loomed up in the background. Sid began talking to her in a mixture of English and what was presumably Parkhill A. The conversation rather lagged since it took so long for the impulses to be transmitted back and forth. But it was perfectly plain that they were completely gone on each other. They were tingling all over with love. Dying to get into each others' arms.

As the landing date drew near you could notice the difference in everyone. There was a certain expectancy, a restlessness in the air, that affected

all of us. Sid was in a fever of impatience. One moment he was looking at Parkhill A, the next he was fussing with his scanner, or watching the chronometer over the instrument board. Or again he would throw himself face down on his bunk and lie there without moving for hours. Truly there is no torment like that of a man eaten up with desire for the woman he loves.

We were all pretty tense when I gave the command to move in for landing. Yet I don't know why we should have been so apprehensive either. The planet had the same gravitational attraction as the Earth and we had already established spectroscopically that its atmosphere had the same composition as our own. I remember that Shorty was at the controls and I was standing beside him watching the dials on the instrument panel. We were coasting along smoothly when I became aware of a peculiar rasping noise from somewhere. The sensation it produced was such a strange one that for a moment I thought it might be an hallucination of hearing. Then I caught a glimpse of Shorty's face in the rear-view mirror. He looked positively ghastly.

The ship trembled and vibrated. Shorty had abruptly changed direction, slipping into a section of a steep parabola that was taking us rapidly away from the planet. The rasping sound subsided. Shorty sagged back in his seat.

"I've heard that sound once before and it means death—sure death," he mumbled.

Now Shorty is a good steady man, one of the few who is older both in



years and experience than myself.

"Where did you hear that sound before?" I demanded.

"It was out about six AU's from the sun," he replied, breathing heavily. "We wanted to make some repairs and thought we'd land on an asteroid we'd run across. Only the asteroid had a coma around it. Not the sort of coma you see around a comet but more like a cloud of dust or gas. We thought we'd better do some investigating first so we came in fairly close and sent a man down to make contact. It was when we were coming in close that we heard this rasping noise. The same as we did a minute ago."

He paused for a moment as if the memory was still painful for him. "I saw him the instant before he hit. Art Crowder his name was. My best friend and one of the finest engineers I've ever known. I can see him now reaching out with the toe of one foot feeling for the surface. And then he was gone. Annihilated. The same as if he'd never existed."

"You mean the asteroid was That Thing beyond Jupiter?" I cried. "The object discovered back in 1927 that they call Comet 1925 II?"

Shorty nodded vigorously. "That was it—Comet 1925 II."

It was my turn to grow pale now. There is no body in space more dreaded than Comet 1925 II. For it is the only known example in the solar system of inverse or contraterrene matter. More than a century ago the existence of such matter was postulated from certain symmetry relations between positive and negative electric charges in the theory of the structure of the atom. The theory indicated that some-

where in space there might be atoms that are exactly the inverse of those familiar to us; namely, atoms whose nuclei are negatively charged and whose extranuclear components are positrons. But the theory also shows that ordinary terrene matter and contraterrene matter are incompatible. They would annihilate each other instantly upon contact, just as an electron and a positron are known to do. The insidious thing about inverse matter is that so far as appearances go it is indistinguishable from ordinary terrene matter. It looks the same, behaves the same, and even gives the same spectrum.

The existence of contraterrene matter had remained little more than a highly interesting speculative hypothesis until the encounter that Shorty had described with Comet 1925 II. This comet which revolves around the sun in a circular orbit had long been a puzzle to astronomers. For since it always keeps at the same distance from the sun it should remain constant in brightness. Instead the brightness of the comet keeps changing erratically, sometimes jumping as much as thousandfold overnight. These changes were completely incomprehensible until it was discovered that they were produced by meteorites colliding with the comet and being annihilated.

"Captain Harker, what's the matter? I thought we were coming in."

Sid was standing in the doorway of the control room. "You haven't forgotten how to land, have you?" he asked, grinning cheerfully at me. "I've had my suitcase all packed an hour ago."

A thought began stealing into my

consciousness bringing with it a cold penetrating numbness. *If Parkhill A was made of inverse matter then the people on it must be made of inverse matter, too.* They might seem to be identical with people like ourselves. Yet in reality they are our exact opposites. We would be annihilated the moment we touched one of them.

I was asking myself, How can I ever tell him? Should I work up to it gradually? Slip it to him a little at a time? No, I decided, better give it to him all at once. Get it over with.

"We aren't going to land, Sid. Never. We can't. Parkhill A is made of inverse matter. Contraterrene stuff. We only discovered it a few minutes ago. Otherwise we wouldn't be here telling you about it."

Sid stood looking at me in a puzzled way. He started to laugh but the grim expression on our faces stopped him.

"Of course you're joking," he said. He glanced quickly from Shorty to me.

"Sorry, Sid, but believe me it's no joke. The planet seems perfectly safe. So do the people. Only they're not. They're deadly to people like us. We never dare go near them or have direct contact with them in any way."

Sid still kept looking at me, a half-smile playing about his lips. He took a step forward. "But don't you understand? I've got to get out of here. Got to get to her."

"She's over there expecting me. Waiting for me . . ."

He made a lunge for the instrument panel. I managed to get my body between him and the controls while Shorty grabbed legs. But the two of us were no match for Sid. I would never have believed that the man

could have fought with such strength and ferocity. If some of the other members of the crew had not come to our aid I doubt if Shorty and I could have restrained him. But we finally got him down and knocked him out with half a grain of morphine.

Shorty regarded Sid's unconscious form. "Talk about flaming love! At the first clinch they'd have released a trillion trillion BEV's."

"They'd have released some mighty hard X-rays all right," I agreed. "A pretty torrid affair any way you want to look at it."

For a long time afterward Sid was in a daze, sitting for hours in front of the screen staring at Sapphira trying to explain it all to her in that queer language they made up. Whether he ever made her understand it I don't know. We are so far from Parkhill A that Sapphira vanished from the screen long ago and the star itself can scarcely be discerned among the host of others in the background.

I never intrude but once in awhile Sid opens up and talks for hours about Sapphira and himself and the life they might have lived on that inside-out world back there.

"It's all beginning to seem like a dream, Captain Harker," he confides. "Sometimes I wonder if it ever happened to me at all."

"That's the worst kind of love," I tell him. Hopeless from the start."

When we count the great tragic lovers of the world, we think of Tristan and Isolde, Heloise and Abelard, Dante and Beatrice . . . To which I now claim should be added another pair—Sidney and Sapphira.

# THE RESTLESS TIDE

by RAYMOND Z. GALLUN



*And now (a United World having turned war into a myth, and the labs having mastered the mysteries of youth and age and diseases and the human psyche . . .*

**O**UTSIDE, it was two below zero by his antique Fahrenheit thermometer. He had just looked. Frost made lacework on the plastic windowpanes, the way some people would always think it should on New Year's Eve. But he remembered that some had liked the thought of Florida winters better. So, fifty years ago it had been different.

Yet had it been wholly right that

palm fronds should rustle near New York on the first of January? It had been an enchantment then—a luxury, a miracle of the weather-control towers that increased the greenhouse effect in the atmosphere, enabling it to retain more of the sun's heat. But time had changed the charm of that to weariness. The crisp vigor of snow had become a nostalgia for the old. Now perhaps the

memory of those balmy winds was a wistfulness once more. Forever there was a shifting tide in man . . .

He stopped his nervous pacing across his living room. But this meant neither relaxation nor the end of thinking. He felt his big hands knobbing into fists. It had happened often, lately. Peace of mind had worn out with overuse, like the appeal of the frescoes now on the walls—bison and deer copied from a paleolithic cave to lend a primitive overtone to Brenda's latest choice of decor.

She sat there on the divan, looking up at him. She reminded him somehow of crystal. And in these last moments of waiting for another century to die he was very aware of her scrutiny. It was cool yet scared. Perhaps it showed contempt of him. But maybe admiration, too. It was fine-drawn and knowing, as with lifetimes of sophistication. Yet it was primitive. And somehow these last two qualities seemed the same. He felt far away from her, and out of step. Together they had seen so much that was different from the present. Was it right that he should almost hate her now?

Her smile probed and mocked him. Yet it was gentle.

"It's like counting off before an explosion, isn't it, Ben?" she said. "Four—three—two—one—zero! It's twenty-three hundred A.D. now, Benny Boy! On and on we go. Whither?"

Then he heard the New Year's bells. Iron pounding iron. Bronze beating bronze. From what shaggy progenitor did the thrill of clanging metal spring? Or had it been tom-toms hewn from hollow logs and headed with rawhide first? And could the tingling reaction

be any less now, with all the refined comfort, safety, and diversion which a crescendoing technology could provide? Did the chromium towers of the cities, miles high, make any difference? Or the United World, having turned war into a myth? Or the laboratories that had mastered the mysteries of youth and age? Or the space liners going to the colonial planets? Or the culture? Or, perhaps most important of all, the deeper understanding of the human psyche—its side of gentleness, its fury, and the points where its yearnings touched crude soil, in spite of itself?

No. In fact the appeal of the bells' beat became part of his sickness of frustration that had lasted too long. Ease was wonderful after hardship. For a while. Then boredom came. Besides, a man had to feed his pride in himself. Soon there was more to despise than the slight padding of fat over his stomach. It was only a symbol, removable by sports and by the simpler potions of medical science. Yet its taint remained, naming him: *useless, pampered fool* . . .

He chuckled. With all the skills and wisdom of his era behind him, he still felt hemmed in by the primal laws of nature. There was built-up force behind his words when he spoke:

"Twenty-five years of this are long enough, Brenda."

He was braced for his wife's reaction, which he knew would disagree. But she went into combat like one who makes a game of it, and has plenty of time. Her smile teased.

"Umhm-m, Ben," she said. "Cycle's end or beginning. Change is the wisdom and pattern of our civilization. And its spice. I know."

She shrugged. Already she had touched a little silver boss on the table beside her. The tinkle of ice mingled with liquid sounds and a soft whirring. How much should one hate the servant gadgetry that once had been things of pride?

Brenda offered him a glass, and picked up hers.

"One final time?" she said with mock dramatic elegance. "A toast. According to custom. To the new year—our first in twenty-five without convivial company. By your request, Ben. To Auld Lang Syne. To whatever you think that you want, now. New Year's is supposed to be especially an occasion for changes, isn't it? But I'm not quite ready for any wild adventures, Ben."

Her defiance was quiet and almost playful — yet definite. He knew his Brenda, yet he did not know her. How could you really grasp the skills, the deviousness, the simplicities of speech that were silken traps, and all the other tools that two centuries of living and learning could give a woman? Such a fine weave of personality didn't used to happen. Yet, like everything, it still had flaws.

He kept looking at her, seeing what he'd seen thousands of times before. She'd allowed herself to age a little. It didn't have to occur, and it could be erased endlessly in the rejuvenation centers. But it was a style, now—part of an always restless and changing mode. So she looked, not twenty, but thirty-five. There was silver in her hair, and it was part of beauty.

And what she was was blended with all that was around her, and its projections. Like everybody, she clutched at a richness of life that was now so

much widened. In her, still, this took the form of soft beautiful things and moods matching. The curved and tasteful line, the chip of music. The luxury whose quiet swiftness bestowed a sense of power, wielded casually as some lesser god might do. He knew the appeal of all that. In a childish gayety you became like an elf among elfin companions. But when you were through with the spirit of this, it assumed the fuzzy taste of an ancient hangover, infinitely extended. It omitted too much. And time was too long, now.

He wondered if women had greater resistance to this kind of boredom than men. Perhaps here they were more civilized. He could see how it was with Brenda. It was her job to design beauty. Then she had her social life, her tennis, and most of all, her house. Here were the elements of a woman's psychological castle—anciently, now, and forever. The peaceful, narrow nest; the place for children. It marked out civilized security against bewildering vastness. Yet it was to be defended savagely.

How old was the conflict between this kind of feminine stubbornness and man's nomad impulse, shaggy and improvident? Still, how often had men yielded their heritage to follow their mates' scheme of things, like tame lapdogs? How many of them had been grateful for this balancing force? And yet, in more mortal times, how many had entered the twilight of life regretting that they had missed so much?

"It isn't fair to you, is it, Ben?" Brenda said, as if she probed his mind. Her motherly tease was tainted with hard sarcasm.

He gulped a third of his drink, then

chucked. "So you know what I'm thinking," he remarked.

"Umhm-m, Ben. More or less. Maybe even about The War—if that isn't too far back and too awful. But more likely about the memories from before twenty-five years ago. When we were helping to colonize and develop another world. Before you—we—got utterly fed up with that."

He nodded and grinned. "Right," he admitted.

For an instant his mind drew back recollections of that last great conflict of so long ago. The righteous rage against arrogance and oppression. And the heady thrill of being part of the might that opposed it. The longing to rip and blast it apart, and to spill the blood of the fools that supported it. Then the action that relieved pent-up drives. The thrills of swooping speed as one struck. The fear. Then the sounds. The roar that masked screams. The primitive crackle of fire.

But somewhere along the line the triumphant savagery had become mixed with revulsion. And before the glory of victory the flames had sucked him in, mauled him, torn him, in terrible surprise and pain that that were like the end of the universe, until oblivion took him.

Such inglorious hell would have blanked out in his conscious memory, except that the doctors who had patched and spliced his body together again had also insisted that for the health of his mind he must not bury horror in his subconscious.

Then there were the long years of rebuilding the world—in the form of utopia this time. Those years were busy and great, for the tide had swung. The

heart and soul of man was behind peace and plenty in a shape and a newness never seen before. But with its attainment, much of the novelty had rubbed off. So another cycle had started. He had pulled Brenda into it. Out beyond the Earth...

"Remember, Brenda?" he said. "The smell of cigarettes and sweat inside the helmet of a space armor. The deep blue sky of Mars. The ruins. It was a cold, dry little planet. But we and the others scraped up the thin hoarfrost and snow with shovels, there at the south polar cap, to get water to drink. Our bunch put up one of the first twenty airdomes. We began a settlement, sealed away from the dead atmosphere. We worked like slaves with our own blessed hands, and loved it. We felt that maybe we were accomplishing something..."

"And then," Brenda commented, "after seven Terran years with the colonial crowd, you swore that you'd never leave Earth again. That people struggled to build civilization, and that, by gosh, you'd become civilized at last! That you'd have a house, a garden, and work your hour a day at the controls of a factory, and that, aside from tennis and fishing, you'd spend all of your other time in cultural pursuits—studying, reading, writing—and maybe even learning to play the medieval lute! No, I'm not arguing, Ben. The proof of never being settled for long is too old."

Sharp guilt dug into him. But his laugh tried to soothe the bitterness behind her humor.

"Right again, my lady," he said. "Fumbling with that lute was golden rest and living during the first year. Later, so was guiding and scolding two small sons—born of your own body,

Brenda, and not popped out of warm fluids in a gestation vat, as might have happened. But Nubs and Joe are men, now—flown from the coop like our earlier offspring. So that's another reason—"

Her smile was like a thin, sharp wire. "Don't go on, Ben," she told him softly. "I've heard all that you're going to say, before. And I accept the truths of psychology. Men are barbarians, apes, children. They fool with a dream. They cement a few stones together. Then they lose interest, and want to kick them over. They used to *struggle* for peace. But the meaning of *struggle* is grimed into our blood and bone, so we hear. It brought us up from nothing. Now, if its force isn't sublimated, it could wipe us out."

"All that is logic," he offered.

"Of course it's logic!" she answered. "Stiff, and true, I suppose. The only trouble is that I'm sick of logic, too! All right, maybe I'm scared to conform—to go out there into space again! But there's more! Civilization was built up to be happy and safe in, wasn't it? So why all the crude lunging and melodramatics? Helping to spread human sway across the solar system is not for me, Ben!"

In her outburst, Brenda looked savage, herself. Strange, wasn't it? Her pale eyes glittered. Or was it the beginning of tears? She was being emotional—not using her head. Or perhaps with a deeper logic, even beneath her conscious self, she was using emotion as a tool. He felt his masculine clumsiness and guilt. A woman's hurt and power, even when it was partly a fake. Especially if, with the woman concerned, you had memories of a million

moods close to the heart. A comradeship remembered urged one toward loyalty and a wish to restore nearness and agreement, didn't it?

Pictures crossed his mind. His sons, as children, playing a tough game with toy pistols. That was an ancient part of boyhood, beyond criticism and irrepressible. Then there were the gatherings of his oldest friends. They loved peace; yet many of their most vivid reminiscences, gleefully told, were about The War. So there were paradoxes in human nature. While under streamlined living, and by the same technology that made it possible, planets could now be ripped apart and half turned to incandescent gas in a moment. If someone became sick enough of an existence that could seem pampered, tawdry, and monotonous. That was why there had to be an outlet for restlessness.

Yet the recognized means confused him, too. For did you tear a woman loose from her quiet mundane moorings, without concern, and drag her into the harsh distance? Even if it had happened before? A keen edge of experience and readiness could be lost completely in a quarter-century. So to take such a course was still a cruelty.

Feeling hemmed in and bitter he gulped the remainder of his drink. More in experiment than in earnest, he said:

"Say I'm dreaming silly, Gypsy dreams, Brenda. Suppose I drop the whole matter as hobo nonsense, stick around on Earth, and try to keep things as they've been. What's left? What happens then?"

She eyed him warily. For a divided instant she looked numbly startled.

Then her clarity came back, keen and a little mordant. She even smiled slightly.

"Should I tell you that you're cornering me without trying, and with the wish that it didn't happen?" she asked. "Is that what you want me to say?"

"No, I don't *want* you to tell me that!" he replied.

"But it's in your mind," Brenda said. "And you know what's left. Other hobbies. For example, you could make models of space ships or even antique locomotives—like Dave Larkin. While I could freshen up life some by re-doing the house, again. For excitement there are always the dream-recordings and broadcasts. Any adventure is possible, as real as real. You can be a Babylonian temple builder if you like, or a mid-Twentieth Century prize-fighter. Such visions are harmless, physically. But indulgence in them is restricted as a force of decay, for they lack the real satisfaction of accomplishment. At least, so goes the Big Argument, Ben. They are soporific, like old-fashioned dope.

"Then there are the synthetic gland-products and whatnot—which suppress any unrest or create any desired emotional reaction. But they're not on the open market, and even I wouldn't like to see you use them. So, since you can't take everyday living anymore, the idea of a future here at home isn't very appealing to you, is it, Ben?"

"No, it's not," he answered frankly.

She swallowed nervously. Her eyes sought his. They were anguished and harrassed, and full of love. For a second she was almost the woman he used to know. Then she seemed bored. A

pout was on her lips as she spoke.

"So maybe you want us to split up for a while, Ben," she said.

His nerves twanged like lute strings plucked by a rough hand. It hurt. And he felt the guilt of his own selfish desires. It was matched against both a certain reasonableness in what she had just said, and a selfishness of her own. So they shared a primitive fault.

Was he a very old-fashioned guy who saw here, now, the ancient flaw that was supposed to belong to the over-privileged classes of centuries ago—too much range? On that basis, everybody had long since become over-privileged. But could anyone truly be that? Range was a wonderful thing to have, wasn't it? It was a boon once denied. Science and common-sense claimed to know how to handle it. Yet many people could still be confused.

He tasted the brass of panic. Its essence again were his memories of Brenda, cool, feminine, and courageous, and at his side in mind and body, in other times. That struggled against the thought of divorce and parting. And the lump in his throat sapped his own strength.

"Shut up, Sweetheart," he growled. "We're Ben and Brenda—remember? A pair."

Her startlement at this pulled her mask away, and showed that she had been frightened and pleading. "You want to tell me that you'll not run off, Ben?" she challenged with some cynicism.

"Maybe," he said. Thus he hedged and half yielded, still clinging to the fringe of good judgment.

The sweetness of emotion blurred her reason, too; and seeing an opening,



she went gladly into his arms. For a few minutes they were like teen-aged lovers once more, and it was beautiful. But had he truly expected it to last? He also had had centuries of acquiring alleged wisdom.

Her grateful look gave way to something vaguely pleased with herself, and yet puzzled. "You're a nice boy, Benny," she said once with a possessive chuckle. So the pretty bubble broke. How many men in all history had had that much recompense for being too soft and civilized in love? And how primitive and subconscious was Brenda's reaction of disinterest and petulance? It seemed to well up from inside her until what did her husband see but a spoiled, dissatisfied woman whose vigor had faded away? Here, again, decadence loomed, barring solutions in the direction of appeasement and gentleness.

Her pout showed more and more. Yet her eyes showed apology and scared regret. He saw the break coming. It was as if the poise of culture formed a crystalline shell around her that tried to hold her to a rigid form. Yet within this brittle restraint primitive power was building up. No matter what she had said, there was an unrest in her that was the feminine counterpart of his own. In the end she over-reacted.

Her lips pursed together, and she began to tremble. She pulled free of his arms. Her features twisted as if in pain.

"Your staying is no good either, is it, Ben?" she said. "You'd be miserable. So would I. Darn the righteous logic! But against it we're thick-headed idiots! I want—Oh, who knows what anybody wants! I can't talk to you now. Will you excuse me, please? . . ."

She was gone, then, to her room. But he could imagine the private picture of her. It was classic: A woman, fuddled, prone face down on the soft covers of her bed, seeking elemental relief in tears.

He knew what course psychology recommended. Yet a civilized taint in him revolted against it. He felt blocked on all sides. His fury was lonely and sour. He hated the house that he had built with such enthusiasm. He hated the wife whom he loved, and the million gadgets that, it seemed, had made their lives what they were. He wished that he was really some troglodyte, amid ash and the smell of offal, from a hundred thousand years back. He appreciated nothing. Time was too long, now; and though people had wanted to be close to immortal, in his flow of madness, he had lost his taste for the idea.

Something claustrophobic urged him out under the cold stars. Around him were a few other dwellings, and bare, winter trees. From beyond lighted windows he heard lilting music from new instruments. Snow crunched under his boots. Overhead were the bright moving specks of the tiny artificial moons that served as space-commerce beacons and as part of the weather-control system. The real moon had set. So he could not see the blue blotches of the airdomes that roofed its cities.

To the southeast was the glow of New York, seventy kilometers away. It had been radiation-tainted rubbish once. But the phoenix story was no longer adequate to describe its new rise to magnificence.

Fresh from hardship in some far place, he knew that his blood would have thrilled to the spectacle of its

corona of light. But now his feeling was all the other way. To his present soured view, here were fifty million human grubs—critical, overstuffed, demanding, served by all the gifts of the ages, yet full of neuroses. Many years back, squalor and disease had been wiped out. Now there were not those things to fight, either. These people had only their confusions to struggle with.

Hating them now was like hating himself. In his wild unreason he wished that he could stamp his boot-heels down on all of their silly faces. He wished that atomic fire would take them, force them back to vigor and courage, or blast them into the timeless silence.

These were his savage thoughts until he caught himself, and realized more than their brutality: Many others would have sick vagaries like his own, and for the same reasons. Such driving notions could easily become a mass impulse toward destruction. Unless nerve-energy was used up in other channels.

There was one single, solid antidote left. It was now a beaten track, known to everyone, and open all the time. It was the path he was urged toward, and knew that he would follow. Still, there was another mental mixup that he and countless others stumbled over repetitiously, almost as Brenda did.

It was the old perfection-hope—the idea that building a technology and a culture was like a mountain that humanity climbed gradually, with Nirvana at the top. A place of constant and perfect happiness and satisfaction. A region where you gave no hurt, willing or unwilling, and received none. A land of superlative refinement and loveliness.

Yes, there was a mixup here, all right. For on one side the rejection of all this was already hot in his soul. It was in the milk-and-water words of description themselves. They stuck crosswise in the lusty craw of human nature. The material elements of such a heaven were already actual. Yet it didn't exist. In the light of experience, you couldn't even imagine its existing, unless somewhere in infinite time people changed radically from what they had been for ages.

Still, on the other side of the confusion, that same phantom, stripped of all outline, yet beautiful and mysterious, kept its charm and inspired its yearnings. It was a paradox of man's being, a will-o'-the-wisp, or a figurative Bright Star . . .

In five minutes, by pneumatic train, he could have been in the center of the City. In half an hour, by any of a dozen means of conveyance, he could have been on the other side of the world. But such wandering wouldn't have helped him in his painful restlessness. Instead, he was urged toward a neighborhood goal. He walked a few hundred meters to a large, low building. Inside, in the gymnasium among other physical-culture enthusiasts, he found Dave Larkin. Yes, the hobby-man.

Dave Larkin and he were useful to each other in an odd way. He had nothing solid against Dave; yet something about the man's large eyes and thin nose afforded him the relief of instant irritation.

"I hope you're feeling as mean as I am, Dave," he said with a leer. "Go ahead—call me a name. A nice, juicy, rotten one."

Larkin, another good citizen, bris-

tled in an interplay of taunting glee, fury, and anticipation of battle, coming out of dullness.

"I couldn't look at you without feeling mean, Ben," Larkin snapped. "In fact the sight of you urges me to vomit. You reek . . ."

He lashed out at Larkin and missed. An instant later he doubled over, as a fist smashed into his abdomen. Then, under the impact of a follow-up blow, a nova seemed to burst in his brain. His anguish was terrible, but his red rage was magnificent.

He flew at Larkin. The thin nose was bent over and flattened like an offending nail-point under a hammer. Flesh scrunched under his knuckles. Blood spurted. For a moment he felt the savage thrill of conquest, relieving in him a little the poison of stagnation, which, in this age, could break up a planet.

Dave Larkin was supine, his glassy eyes turned toward the ceiling, his lips gory and mashed. "You damn fool, Ben!" he squeaked. "This time you're crazy!"

And the conqueror saw how he had known it would be, with himself. As other eyes turned on him in amused and interested shock, he felt his shame for an outburst that had been childish and animal. But such shame at least brought humbleness and contrition. And compassion. Funny, wasn't it, how closely elemental violence was bound to compassion? For without violence and suffering, compassion—the mark of the truly civilized—had no use, and could not exist. To bring such good feelings to life nowadays, you almost had to use artificial means.

"Hell, Dave," he mumbled. "I didn't mean . . ."

He lifted Larkin up tenderly and with apology, while the others prepared first-aid. These days missing teeth meant nothing. Replacement was simple.

Whole organs could be renewed from stocks cultured and grown apart from any human body. Life, animating protoplasm, was not as deep a riddle as had once been thought. And the forces that shaped form in growth could be directed. Besides, it was law now that for each person the entire body-structure, down to the minutest wavering of a filament in a brain-cell, or the slightest variation of its chemical composition, must be recorded periodically, as a pattern for repair in case of accident. It was even rumored that soon, with such data—impressed on tiny rolls of plastic ribbon that were numbered and stored away—an individual completely destroyed might be rebuilt again, without the loss of even the finest detail of personality or memory.

"Oh-oh," someone laughed. "Ben, you're overdue. Your tide has turned; the bug is peeking out. Better get back to things . . ."

His shame, now, was that of one whose madness is public knowledge. He felt fear, as of a disease. The future, with all its harsh strangeness after so long a rest, held less glamor now that it was close. But he was ready to act. There was no other way. Struggle and pride of accomplishment were gods. Change was the salt of life. More emphatically nowadays than ever, these old platitudes were the key to the health of society. At least that was the claim.

If Brenda had revolted against a narrowness here, and in fright was clinging to her possessions, still hadn't

her subconscious contempt of him for weakness also led him on toward what he had to do? Her primitive restlessness and lack of peace of mind were as clear as his own.

He went home and to her room. Maybe she only feigned sleep. He put his arms around her very gently and then tightened their grip. Their pressure was both dominance and protection. She gasped in surprise and anger, and her own strong muscles hardened against his.

"There'll be no fooling now, Sweetheart," he growled softly.

His roughness was crude. The gentleman in him hated it. But perhaps she had been too long a lady. The ancient chemistry that had helped the race battle upward, was still active in her as it was in him. She clawed his cheek and kicked and tried to strike him.

"Ben—you ape!" she yelled. "Who do you think you are?"

They killed some of ultra civilization. But perhaps in grabbing control and responsibility, he performed an ancient service of man to woman . . .

Afterwards, he sought to compensate for guilt with reason: "We live in wonderful times, Brenda Honey. But we're still herded by circumstances. We can't rot, and we can't ignore the proud devils in our insides. We must tackle jobs big enough for our powers. That's the way to handle our advantages, instead of letting them handle us. In the morning we'll start what we have to do . . ."

At the colonial offices where they made their applications and listed their old skills, Brenda was still sullen and scared. And even if good sense told her that it was not his fault, her primi-

tive emotions could hardly be so reasonable. So he bore the weight of her hurt, wondering if they'd ever be close to each other again.

Yet there was some compensation. Adventure was back. The vagabond spirit was alive again. Glamor was marred by the tensions of reality; but did one want a dream or truth? The eternal quest for newness was on again. There was big work to be done, problems to be solved. His excited blood hammered like tom-toms.

He sent messages around the Earth and across space, telling his scattered children where their parents were bound. Nubs and Joe, the youngest, were on Venus, not long ago almost lifeless, smothered with heat and dense carbon-dioxide gas.

On the space liner, Brenda and he enjoyed their last real luxury. But soon after the blue-white flames of fusing atoms hurled the ship from Earth, physicians and nurses took the thousands of passengers in charge. They were put to sleep for the rejuvenation refresher.

Warm liquid engulfed them. Cell-structure firmed, connective tissue tightened, obstructing deposits of minerals and fatty acids were dissolved. In a way it was like rewinding a clock.

The liner crossed the orbit of Mars, which was almost a lesser Earth now. Then it moved on, arcing wide above the path of broken fragments that were the asteroids, where the richest mines were located. Much later the ship passed Jupiter's orbit, though the giant planet was on the other side of the sun. Its many moons were no longer frozen . . .

In sunlight enfeebled by distance, the liner continued on its way. Its pas-

sengers were returned to consciousness and activity. Their younger faces looked strained. For they were fresh from soft living on Earth. Sight of the hard stars of space was either too new to them or too old. Bright adventure tarnished some. So maybe here there were signs of another frustration.

Brenda and he were among the others, as the ship curved around colossal Saturn, only twenty thousand miles away. The Rings, composed of countless small meteors circling the planet at high speed, made the most splendid spectacle in the solar system. Yet it looked repellent and cold, and almost hideous. His feeling was that people could not belong anywhere near it.

Brenda was silent beside him, her lower lip trembling, her eyes bright with angry tears. Yes, he'd brought her into all this, hadn't he? Besides he felt the first sharp regret for things left behind. Things he had hated so recently. He wondered who'd be living in his house now. And in spite of knowledge that he was following a proven pattern toward peace of mind, still he thought bitterly of the conflicts and contradictions in man. It was as if there was never-anything to grasp and hold for very long. It was as if life was a series of bright illusions that turned into the same stone wall as soon as you lunged at them.

The liner swung outward to Titan, largest of Saturn's numerous satellites. There it landed. Its passengers fell in line to disembark, and to meet the other thousands already here. The metal buildings of the camp were harshly utilitarian. Here was the frontier, the fringe of expanding civilization, where

pioneering could go on and on. Here were the people who, tiring of one side of living, were reaching for something else. Yet in many sober faces, as in his own heart, he saw the question of what had been gained. It was homesickness for an idyll that had been given up for this.

Instructions and equipment were issued. There was time for rest. Then various courses of training began.

Titan was no longer cold and lifeless. Ten years ago the great air-machines had been set up. Torrents of oxygen had already been wrested from the frozen strata of carbon-dioxide, and from the silicates of the rocks—even the silicon itself was transmuted—to decompose the poisonous methane and ammonia gases of the original atmosphere, and to make breathing possible here without space armor. And there was artificial sunlight, now, supplementing the weak rays of the distant sun. For a large man-made moon of a moon already swung steadily around Titan two thousand kilometers above its mountains and plains. The surface of this sphere was metal, kept incandescent by a slow atomic process.

Five hundred hours after the landing, Brenda and he drove an ato-truck along a valley to an assigned area far out in the wilderness. Here a stream that had been ice for eons now flowed into a new lake. In the volcanic ash, seeds specially cultured for Titan had been scattered by planes. Along the lake, they had already grown into low bushes.

But the scene was still utterly dreary, matching his own bitter frustration and nostalgia. Once, in an effort to build

Brenda and himself up, he preached a

little from the philosophy of the times:

"Life is movement, Brenda. It is restless and primitive. It is never crystalized perfection. The shifts and changes and surprises are what we are designed to enjoy. The lifting from the dumps to the clouds. It's the contrasts that count. There's a rough drama in people. They have to accept the fact of it . . ."

Now it sounded trite, silly—a feeble attempt to explain the relationship of man to a universe that was too enormous. Yet he had to believe it, didn't he?

But the barren grey hills spread around him. And the only sounds were the rustle of the wind and the lap of water. He had dragged himself out here. And Brenda—so used to other things. It was his doing, his fault. He had left the rich, mellow Earth for this.

"Let's get to work," he growled, because there was nothing else to say.

Brenda's face was set and grim. Toiling doggedly and without comment, she helped unload the truck and to bolt together the small, prefabricated dwelling. He wondered if, like a cave-man's mate, she was enjoying a martyrdom to his folly. It angered him, for he wanted a friend, not a slave. Relationship of man to woman had many conflicting facets.

He found himself admiring her toughness and courage. From this beginning his feelings changed slowly, like a dawn breaking. The taste of his own sweat on his lips was a good taste. The ache in his muscles was satisfaction. The house was up. Here was reality, solid purpose, and toil with one's simple hands. It was like it was supposed to be.

Brenda was in coarse blue jeans, like she used to wear under her space armor on Mars. From a supply chest she had taken small, tinted curtains. She was putting them up on the windows, scowling with concentration, but humming absently to herself. Here at the end of a long journey, she was in a new home, a new castle of security. She was over the hump, too, and at peace. Domesticity had her in its primitive clutches. No—he wouldn't tease her, now, for her change of view.

"We'll go back someday, Brenda," he chuckled. "When the tide turns. Those days were wonderful, too. And they'll take on the charm of old times."

"Shut up, Ben," she ordered softly, and laughed.

It was as though she wanted to deny their past confusions. He caught a motherly look in her eye, as if she thought him partly a child. Yet there was worship of strength, too, just for a second.

"So all of a sudden we're not phony anymore, Ben," she mused. "It feels good. Back on Earth I was trying to hang onto some small limitations too—to keep from getting lost . . ."

He grinned. Women were deep. More than ever he suspected that—subconsciously—she had challenged and egged him on, back into space.

They ate supper, cooked on a small atomic stove. "Tomorrow I'll start the garden," he said. "This'll be a settlement, soon."

It seemed that for now they had won a vast reward. Newness was all around them, and they were together again as pals and equals. They did not even have to talk to understand each other. They had the present, but they had rich

memories as well. They had known contentment, luxury, pain, struggle, beauty, achievement. Life in past ages had never been so complete. It made a balanced and colorful mosaic, with a barbaric tone. Mystery, curiosity, and recklessness were in it.

For a while, with both the incandescent orbiter and the real sun beneath the horizon, it was night. Clouds obscured part of huge Saturn. In the atmosphere, expanded and thin because of the low gravity, but rich in oxygen, lightning flashed and thunder rolled. Warm rain pelted down. But in the far third of the sky stars still blazed in the fearsome distance.

Lying in the darkness, Brenda spoke whimsically: "Ben . . . Will people always be half-wild nomads? Will they ever change?"

"How should I know?" he said.

Yet his mind clutched with both pleasure and fright at a far future which he could not imagine. Somewhere there the phantom of Nirvana still taunted him.

"People always reached for the stars,

figuratively, Ben," Brenda pursued. "When all the useful worlds of the solar system are colonized and beautiful and crowded, I wonder if a way will somehow be found to cross the light-years to other systems. Will a shortened interdimensional path somehow be blasted across those distances? Maybe that's utterly impossible. Or will the trip be made at a crawl of a few thousand kilometers per second, in ages of time? Or is interstellar space a barrier that will never be broken?"

He thought of the impossibility of remaining static, and of the need for a challenge that really matched increasing powers. He remembered how he had looked on New York before he had left Earth, and how senselessly he had beaten his neighbor. Mankind was like a rough, sturdy plant, growing, thrusting; crude but magnificent, and caught between rot and fire.

Sombreness entered his mood. It thrilled and scared him. His throat tightened.

"I guess folks will have to reach the stars sometime," he said. "Or die."

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### **EMBROIDERY** by Ray Bradbury *(continued from page 6)*

The second woman watched an embroidered flower go. She tried to embroider it back in, but it went, and then the road vanished, and the grass. She watched a fire, in slow motion almost, catch upon the embroidered house and unshingle it, and pull each threaded leaf from the small green tree in the hoop, and she saw the sun itself pulled apart in the design.

Then the fire caught upon the moving point of the needle while it still flashed, she watched the fire come along her fingers and arms and body,

untwisting the yarn of her being so painstakingly that she could see it in all of its devilish beauty, yanking out the pattern from the material at hand. What it was doing to the other women, or the furniture or the elm tree in the yard, she never knew. For now, yes, now! it was plucking at the white embroidery of her flesh, the pink thread of her cheeks, and at last it found her heart, a soft red rose sewn with fire, and it burned the fresh, embroidered petals away, one by delicate one . . .

# 20 QUESTIONS SCIENCE-FICTION QUIZ

by The Editors

If you want to keep up with the Janeses in science fiction — and we don't mean only Raymond F. Jones but also Jack Vance, Willy Ley, Murray Leinster, A. E. van Vagt, and all the other top-notch weavers of sf tales you'll find in the pages of *Marvel* — you'd better check your scientific knowledge with the following questions. A score of two hundred indicates you're right up there with the science fiction geniuses, and you certainly know what you're talking about if you can hit one-fifty. You're only a borderline case with one hundred, and you'd better get out the textbooks if you drop below the century mark. Have at it!

## PART I

*Let's start with some general questions—with ten points for each correct answer.*

1. According to Einstein, what would happen to a moving body if it reached the speed of light?
2. Name the latest science fiction story (as of September 1st, 1951) to be "in the makings" as a motion picture.
3. What is the location of the largest meteor crater yet discovered on the surface of the Earth?
4. The whale is the biggest sea-creature known, but the whale is not a fish. What is the largest fish?
5. We all hear a lot about  $E=MC^2$ , the simple little equation which makes the wheels of our universe go 'round. But what, actually, does it mean?

## PART II

*For ten points each, find the one answer which completes each of the following statements.*

6. The ancient Inca records indicate that mankind originated by (a) an argument between the sun god and moon god, (b) the sun coming down to Earth and planting two eggs, one male, one female, (c) the experiments of a sea-deity.
7. Charles Fort was (a) a collector of occult data and an iconoclast, (b) a famous science fiction writer of the early 1930's, (c) a physicist who wrote fantasy as an avocation.
8. The sting of a black widow spider (a) will kill a man within an hour, (b) is rarely fatal, (c) will kill after thirty-six hours have passed.
9. The planet Venus is most often our morning and evening star because (a) it is so bright, (b) of its proximity to Earth, (c) of its position with respect to both the sun and the Earth.
10. One accounts for the brilliance of the star Deneb by realizing that (a) it is extremely close to us, as stellar distances go, (b) it has recently gone through a "supernova" stage, (c) it is a giant white star, many times larger than the sun.

## PART III

*These are true, or they're false — you determine which, for ten points per question.*

11. Venus has the highest albedo — reflecting power — of any planet in the Solar System.



12. Our true *homo-sapiens* ancestors go back in time no more than twenty-five thousand years.
13. Dwarf stars, like Sirius B, are small and tenuous by astronomical standards.
14. There is no poisonous lizard alive today.

#### PART IV

Find a term in column two which fits each term in column one, at ten points per throw.

- |               |                                                               |
|---------------|---------------------------------------------------------------|
| 15. Goddard   | a. Surprisingly massive for its position in the solar system. |
| 16. Eohippus  | b. Author of an early science fiction play entitled "R.U.R."  |
| 17. Pluto     | c. A small group of stars similar to the Orion cluster.       |
| 18. Kapok     | d. Debris from a shattered planet.                            |
| 19. Meteors   | e. Debris from a shattered comet.                             |
| 20. Asteroids | f. A large, fork-tailed dinosaur.                             |
|               | g. An ancient order of sea-reptiles.                          |
|               | h. Ancestor of the modern horse.                              |
|               | i. Director of a midwestern observatory.                      |
|               | j. American rocket expert.                                    |

#### TURN PAGE FOR ANSWERS

20. d  
19. e  
18. b  
17. a  
16. h  
15. j

#### PART IV

14. False. The Gila Monster of Southwestern United States and Mexico is very large, very much alive—and quite poisonous!
13. False. Small, yes, but not tenuous. A dwarf star is massive, so massive that a cubic inch of its matter might weigh several tons!
12. False. A recent discovery places him back 75,000 years or more, fifty thousand years before blunt-browed Neanderthal man came along!
11. True, due to its dense atmosphere. For the same reason, Earth is second.

#### PART III

10. c  
9. c  
8. b  
7. a  
6. b

#### PART II

5. It means that energy is equal to mass multiplied by the square of the speed of light. Or, you need an awful lot of mass to get an awful little energy—unless you're playing with atoms!
4. A rare specimen known as the whale-shark—it can reach fifty or sixty feet in length.
3. Northern Quebec, Canada—with a diameter approximately twice that of famous Meteor Crater in Arizona.
2. "Hard-Luck Diggings" by Jack Vance (to be produced by 20th Century-Fox).
1. It would attain infinite mass, hence reaching the speed of light is a theoretical impossibility.

#### PART I

# SHOULD POPULATION BE CONTROLLED?

(A Special Feature by the Editors of MARVEL)

Three stirring answers to the most vital question of our time!

**Y E S**

by **FRITZ LEIBER**



"Educate people and raise their standard of living..."

THE NEWSPAPER said, in pert tones, "*Figures confirm decline in Martian standard of living. Population increase during the last ten Mars-years is believed responsible—*"

Ringrose switched it off.

His friend Greentree looked up from the book he'd been perusing. "You're not interested?"

Ringrose shrugged. "Why should I be? These little colonial problems are elementary. It'll all be solved in the usual simple ways: encouragement of child-bearing in Martian urban areas, encouragement of migration from cities, an induced rise in the cultural level of depressed Martian pioneer areas—"

"Certainly," Greentree agreed, "because this is the 23rd Century. But do you realize there were times when it didn't seem simple at all? I've been studying up on this thing a bit. Why, in the 20th Century—" (He switched off his book) "—they didn't even realize that they already were controlling human population increase."

Ringrose raised his eyebrows languidly. "They actually were doing something so intelligent in those barbarous days?"

Greentree nodded. "The dwellers in all their big cities were limiting childbirth so that the cities would have dwindled away except for constant migration from low-income rural areas, where the birthrate was high. But here and there the trick was being turned in different ways. Ireland, after a disastrous famine, halved its population in a century, largely by adopting a social pattern of late marriages in rural areas—you married partly to get land, so you often had to marry late! While Sweden tried the trick of offering financial encouragement for child-bearing among middle-class urban dwellers who needed encouragement rather than among low-income rural dwellers who didn't."

"Sounds sensible for their time," Ringrose commented. "Yet you say they didn't realize they were controlling population increase in those ways?"

"They didn't like to admit it to themselves." Greentree became thoughtful. "Perhaps they hated to think of themselves as intelligent animals that naturally

planned for the future. They wanted to leave a place for impulse—and one's pattern of reproduction seemed a good spot. Though it was no more sensible than if a farmer should sow seed by impulse, without taking season and soil into account."

"That reminds me," said Ringrose. "I suppose the churches were against any rational control of population increase in those days. Religion no longer could dictate methods of agriculture and art and business—as they could in witch-doctor times—but they still did have the say in the 20th Century as to marriage customs. 'Increase and multiply,' and all that—"

"That's only partly true," Greentree assured him. "Most Christian faiths believed that parents should have no more children than they could care for and educate suitably. What some faiths did object to was certain methods for limiting childbirth, and even here they were willing to compromise—as they finally did, for instance, when temporary-sterility tablets were invented. No, it wasn't so much religion that worked against population control, as it was mental habits inherited from the days before death-control."

"Death-control?"

"Sure," said Greentree. "Up until the 20th Century, people had to produce as many children as possible to keep pace with the plagues and high infant mortality that were carrying them off. But then medicine began to make tremendous strides. Within a century, the length of life an infant could expect jumped from around 30 years to around 60 years in advanced countries. Death-control had been established—which, when you come to think of it, is just as much an interference with the natural order of things as the control of birth. People no longer had to worry about plagues. Even during disastrous wars their population jumped. What they did have to worry about was that death-control, without control of births, would produce intolerable overpopulation and slum conditions, especially in countries that didn't have high standards of living. Take Puerto Rico—"

Ringrose blinked.

"You know, the lovely island. America freed it from Spain about 1900. The newcomers conquered yellow fever and introduced all sorts of sanitary and medical improvements, but they did nothing to check population increase. Within fifty years Puerto Rico's population had jumped from a million to two million. Trying its best to get along under the impossible conditions of more than 600 people per square mile, Puerto Rico became a country of slums. Death-control, just by itself, had made things worse.

"You see," Greentree went on, "ever since Malthus warned mankind that the day was coming when there wouldn't be enough food on earth for all the multiplying mouths, people had been saying, 'But that time hasn't come yet.' The fact is, that time *had* come, a long while before. Chinese history had recorded terrible famines for two thousand years. India was losing millions each year to straight starvation and to malnutrition due to famine. Countries like England and Japan could only support their populations by exporting manufactured products and importing the food they couldn't raise—and that trick could work only as long as there were other countries without their own factories."

Ringrose said, "You'd have thought Earthmen would have seen the pickle they were in, if it was that plain, and done something about it fast."

Greentree replied, "They were always hoping that some solution would pop up miraculously, so that they wouldn't have to come to grips with the core of the problem. First they thought that people in crowded countries could migrate to new lands. But the new lands gave out. Then they decided that scientific methods of agriculture—chemical fertilizers, farming the sea, and all that—could keep the supply of food rising forever. But there is only so much sun energy and so many carbon atoms on earth. Finally they hoped that world-wide industrialization would automatically limit population, forgetting that the industrial revolution had *increased* England's population—and that there was no guarantee that an Indian or Chinaman would react like a Frenchman to industrial life.

"Then, too," Greentree went on, "people of the 20th Century had a lot of wild fears as to what control of population increase might mean. They pictured a dictator who would say sternly to one couple, 'You cannot have any children,' and to another, 'You must have a child at once.' They didn't stop to think that control of population merely means free and intelligent planning, that there's no more brute force in it than in free compulsory education or a graduated income tax.

"Educate people and raise their standard of living and they'll *want* to control population increase, they'll want only as many children as they can bring up wholesomely. It's only by lowering people's standards of living, by taking away their leisure time, their books, and their electric lights, that you can get them to breed without sense or stint."

"Of course, of course," Ringrose said. "Incidentally, didn't the 20th Century folk realize what they were doing to their heredity? As I take it, the low-income rural groups were producing most of the children. Of these farm kids, the brightest went to the cities—where they didn't reproduce themselves. Every generation, more of the genes for high IQ were being lost. A priceless hereditary treasure was being dribbled away."

"They realized it," Greentree assured him. "They didn't know enough then to be sure that an intelligent couple's child had better IQ-heredity than an ignorant couple's. But they certainly knew that—if intelligence means anything—he'd get a better bringing up for life in civilized society. And they did already have evidence that the average IQ was declining. That was one of the many things that eventually forced them to be sensible."

"I suppose," said Ringrose, "that they were bothered by the old dread that countries which increased their population fastest would win out in wars?"

Greentree nodded. "But they were beginning to see that technology could beat manpower any day, and that you couldn't have the best technology without a high level of intelligence and a high standard of living."

"Well," said Ringrose, "it's certainly a good thing that they began to control population and conserve high-IQ-heredity before the robot revolution did away with the need for any men or women to do routine work—either white-collar or manual labor. There's no place for even high-grade morons in today's world,

where all jobs are more or less creative and executive."

"That's for sure," Greentree agreed. "And we'd never have got rid of our overcrowded super-cities without population control. They'd have stayed as sink-holes to absorb the huge surplus of rural children."

"And we'd never have had world peace," Ringrose concluded.

Greentree nodded and smiled. "It's a funny thing," he said. "Today we take for granted that we plan the size of our families just as we plan our careers. We plan next century's world population just as we plan its power supply. But I suppose back in the 20th Century it must have taken courage to take a firm stand for intelligent planning in anything."

Ringrose laughed. "Good thing for us those barbarians decided to be brave about it, as well as brainy."

• F.L.



"It is Nature's intention that we should multiply . . ."

## N O by ARTHUR J. BURKS

UNNUMBERED AGES ago the Lord God said to man: "Be fruitful and multiply and replenish the earth." This is written in the first and greatest of science—if not science fiction—stories ever revealed to and put together by man. In this Book is also a vast record of the catastrophes which overwhelmed man when he disobeyed the mandates. Punishment was always certain. It always is, a fact which needs not to be certified by the Good Book. Nor does it require that scientific man believe in any religion. All it requires is that he look around him.

During the past hundred years or so man has gadgetted up his life to unheard of heights. He has become so scientific he can't even breathe in without counting calories and weighing himself regularly on penny scales. Science has even sought to control his breeding, a quest which has caused Nature herself to rebel, since nowhere else in Nature is such control exercised *by the variety controlled*. No living variety has sense enough to be trusted with such control.

Many books have been written on the subject of controlled population, pro and con; many are very learned, many are well written. Vogt's "Road to Survival" and Cook's "Human Fertility" are musts, regardless of which side of the question the interested person takes. It is often said that man digs his grave with his teeth, because man's fertility provides him with so many teeth he literally eats himself out of house and home. That, in other words, in a very short time there will be so many people in the world there won't be enough food and man will starve. This is sheer nonsense, though I can't prove it in this brief exposition. Arthur Brisbane said that all the people in the world could be subsisted in the State of Texas. George Washington Carver, Tuskegee's great scientist, working in his

fields one day, refused alms to a passing tramp with words like this: "Between here and the city (a mile or two distant) along this road, is sustenance for you and all your family. Learn to make use of it and you won't need handouts." Doctor Carver referred to "useless" weeds and grasses which cluttered the shoulders of the road. He was probably thinking of the seven hundred foods known to the Indians, which have been lost to us for various reasons—though still growing, practically out of our ears.

Science is generally agreed on one thing: that nothing is ever lost. If this is true, and I believe it is, nothing that man eats, drinks, breathes or otherwise stirs up, can ever be lost. Man only loses the knowledge of how to re-assemble what he has unbalanced and use it again, and again.

If ever population is controlled, mankind is utterly doomed. When families are limited to one child for each parent, the very men and women who are born "gifted", who will know how to feed the selected and pampered, have no chance to be born at all. For not all great men and women were the first offspring of their parents, but the fifth, sixth, even the fifteenth.

For a hundred years now man has been impoverishing himself. He has "mastered" Nature in many ways. He has conquered mankiller diseases, and Nature, trying to restore the balance broken by the egotistic upstart, has sprayed man with new ills which kill him slowly instead of all at once. He doesn't die, he lives longer than ever, dying by inches the whole time. His world is filled with sorrow and frustration. He gets his fruit, meat, vegetables, out of cans—and "enriches" them with vitamins—whatever they are—out of bottles.

In olden days man may not have lived so long, but it didn't matter, because he did the best he could to carry out the Lord God's mandate to be fruitful and multiply, and lived on blood-red meat of many varieties, the healthier for him because he had to hunt it for himself.

If Nature had meant for mankind to control population, she would herself have controlled his seasons, as she does with birds, animals, flowers. She did of course take some hand, by restricting the human female somewhat—to, save on the rarest of occasions, no more than five to a litter, and to, usually, only one to a litter; and to, finally, scarcely better than one litter per year.

And there is actually no such thing as a monogamist. How can there be, when Nature drives and drives, in order to maintain the balance set for the world and the universe in the Beginning? I, personally, would be afraid for humanity in this matter of control but for one thing: Nature will always run the show, in spite of the secrets we pry from her and channel to our own destruction. For that reason not all the control that mankind can ever devise will operate anywhere or for very long—for the simple reason that it *just ain't natural!*

Women, for example, know all the tricks, to evade conception, but Nature comes upon the most careful of them apace, and they conceive, and bear children. And too, with but few exceptions, women cannot endure going all their lives without knowing whether or not they can bear children. Because it was, still is, always will be, Nature's intention that human beings shall be fruitful and multiply.

In China there are tiny farms on which whole families have subsisted for a known forty centuries—doubtless many preceding unrecorded centuries. India's Hunzas intensively cultivate terraced, built-up land which has been irrigated since the days of the Incas whom they resemble. They are powerful, long-lived people, *self-supporting*; the "scientist" hasn't found them; rather, the scientist has, but in this case the scientist has been a man eager to learn rather than teach.

While it is true that there are approximately 100,000,000 illnesses each year in the United States (the best "doctored" country in the world!); that 700,000 hospital beds are occupied every day of the year; that the patients are cared for by 60,000 pharmacies, 7,000 hospitals, 8,000 clinics, 60,000 dentists, 150,000 pharmacists, 280,000 nurses in all categories, with 145,000 doctors to supervise and manage the whole, literally, *mess*—it's a good thing we human tinkers have this daily chance to study the catastrophic results of our meddling with Nature before it's too late.

Even if we develop the hydrogen bomb—itsself proof of how wrong we can be in our meddling, to the point where we can blow the whole world apart—it won't matter a single solitary bit to the human race, so long as one man and one woman are left from the holocaust, and neither is too young or too old or incapacitated sexually. If, as *The Story* has it, we started with one man and one woman, we can start the same way again, since Nature is in no hurry, and build right back to a new Age of Scientific Meddlers.

• A.J.B.



"Many years, perhaps generations for new ideas . . ."

## MAYBE by FLETCHER PRATT

IT SEEMS to me that a question of this order will remain as much a discussion in a vacuum as that of how many angels can dance on the point of a pin, unless it is considered in the light of what means are to be used to accomplish the desired result. Now, what means are there of controlling population increase? Fundamentally, we know only two today—infanticide and contraception. The first need hardly be considered; the second is regarded by large portions of the world's population as even more immoral.

Moreover, it is precisely in those areas where the need for control is greatest that this prejudice (or religious principle, if you prefer the phrase) is most powerful. There is evidently a certain degree of population control already in the high-living-standard countries of western Europe. Even the inducements Hitler put out for more children could not very much increase the German birth-rate in the face of the quiet opposition of the women who did the bearing. But the real difficulties of over-population do not stem from western Europe.

They arise in the backward areas of India, China, Japan, Indonesia and, for that matter, Puerto Rico.

Any effort to control human population must be undertaken on a world-wide basis. If it is less than a world movement, the result is only one-way control; the rest of the world limiting itself to an optimum population, only to be smothered in a wave of backward peoples, exercising a pressure so intense that no legal barrier could be held permanently against them. This can be seen in miniature in the case of the Puerto Ricans; there are over 300,000 in the United States now, and if they and their children were returned to the island, it could not possibly hold them.

It is true that the United States, Canada and Australia have so far succeeded in keeping the really large masses out, but the barriers have only been up for less than a hundred years, which is a very short time in racial history. A lost war, or any one of a number of other historical events, could change the picture very quickly.

Now, let us suppose that the U.N., or some similar organization, should decide on world population control—which is a big supposition, in view of the number of nations that would be basically opposed. How is this control to be enforced in Bihar or Hopei? What kind of policemen, what kind of medical inspectors, would tell the Indian or Chinese peasant women of remote villages in these provinces that they could not have any more children? How large a staff would the enforcers have? The enforcement of any regulation becomes absurd when the enforcing agency requires a personnel almost as numerous as the people on whom the regulation is being enforced.

Mass sterilization? I think that any effort in such a direction would quickly produce population control of another kind, in that it would be necessary to shoot down the objectors in figures with several zeroes after them. A campaign of education? It would run squarely into the fact that the objection to population control is not based on ignorance, but on religion, which refuses to recognize the importance of any argument based on the state of this material world. Even if the leaders of certain religions could be brought to agree that part of their doctrine should be revised, it would take many years, perhaps generations, for the new ideas to penetrate far enough to be effective.

In this sense, then, the question is not whether human population increase should be controlled, but whether it can be. And even this is not the whole story; there is also the question of whether it needs to be. The *drosophila* experiments and the general trend of populations in history tend to indicate that there is a self-limiting factor in populations which governs their increase. It may express itself as an ideological change, as it did in the Hawaiian Islands, in the days before the white man reached them, and a population which was in danger of exhausting its food supply stabilized itself. It may express itself in a variety of other forms.

For instance, there was at one time considerable concern over the idea that the higher birth-rate of negroes meant that they would soon outnumber the whites of this country. It has since been discovered that, even with the same nourishment and medical care, they have a still higher death-rate. Nobody knows why; the



deaths are spread around among too many causes.

The periodic famines of India and the prodigious disease rate in China could be other expressions of these natural mechanisms within the bounds of the supporting medium. Europe was threatened with over-population in the Middle Ages when the Black Death suddenly appeared and carried off a quarter of its people.

One trouble seems to be that our humanitarian age is determined to do away with these natural controls. Quite apart from the progressive consumption of the resources of the planet through misuse of the soil, this is producing a Malthusian crisis of quite a different kind. It has already produced crises in limited areas, of which India is the classic case. Improved methods of food production and distribution, including rice from Burma, seemed to have eliminated the frightful periodic famines which were a regular feature of life on the sub-continent during the last century. But this very abundance of food combined with improved medical care to produce one of the greatest population jumps of history, and, as this is written, India is experiencing one of its most spectacular famines. It is the same with Puerto Rico, in many respects a classic case. The population of the island was reasonably stable during centuries of Spanish rule, but as soon as American doctors and maternity hospitals came around, there was an explosive increase.

That is, the scientists, the medical and transportation men, have interfered with the balance of nature in one respect; and they now find themselves compelled to go on with the process or see the world take the penalties nature usually inflicts upon interferers—as in the case of the mongoose in Jamaica or the rabbits of Australia. Having destroyed the natural controls on population, or some of them, they are required to discover artificial ones.

Of course, as remarked earlier, it may not be necessary. The long stabilization of the Japanese population before the country was opened up, the similar stabilization of Hawaii, suggest that famine and disease are not the only controlling factors, that there are other auto-controls still imperfectly understood, operating when populations are restricted to small areas. If there are such factors, we have only to keep the barriers against over-populated areas up for long enough to bring the auto-controls into operation.

But if it turns out that there are no auto-controls, the scientists had better start thinking, and it is merely confessing defeat in advance to say that any result of such thinking would encounter religious objections.

The point is that, as yet, few have tried much serious thinking about the problem. And nobody has answered the ad: *WANTED—A means of limiting population increase that will not offend religion.* It may not be necessary to have one, but things are getting tougher, and it would be nice to have an answer ready.

• F.P.

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**All readers are invited to voice their opinions on this subject. We will print as many letters as space will allow in our next issue. Address: Feature Editor, MARVEL SCIENCE FICTION, Stadium Publishing Corporation, 350 Fifth Ave., New York 1, N.Y.**



# Under the Lens

Letters from  
Our Readers

★ ★ ★

Dear Ed:

Although the writer is a newcomer to your little magazine, I imagine myself an oldtimer as far as science fiction literature itself is concerned. I do, however, wish to congratulate you upon the very fine novelette of Raymond Jones in your August issue. This story which he has named SEED could not be called by any other name. It is very fine, and quite, quite, significant!

I suggest that you permit him to speak more often.

Too, I should like to submit a title for the Bok cover. It would seem to me that it should be titled: HER LUNAIAN ADVENTURE.

Thanks for the entertainment you afford.

HARDIN RAMEY  
Yukon, Okla.

Dear Ed:

I find your mag one of the best in the field and I wish I would have bought it a long time ago. Your fact articles are a good idea but I notice that your letter department is rather small and I hope in the near future you shall enlarge it. Now to rate your stories.

- 1—Seed was excellent.
- 2—Yes And No I rate just below Seed.
- 3—An Easy Little Puzzle.
- 4—Skag With The Queer Head.
- 5—At No Extra Cost.
- 6—This Joe.

The contest is a great idea, I wish that all the other mags had something like this. I find to name the cover rather easy. Here it is and I hope I win.

COVER: "IN THE WORLD OF IF".

JOSEPH SEMENOVICH  
Long Island City, N. Y.

Dear Ed:

Another swell issue of MARVEL SCIENCE FICTION!

Whatever the reason may be, you seem to be lucky enough to get short stories that have that extra something that makes them outstanding stories. This month (Aug.) I think that Peter Phillips' At No Extra Cost rates first place.

The rest are hard to choose between. Perhaps Philip Latham's An Easy Little Puzzle has the edge with Yes And No next, followed by This Joe, Seed, and Skag With the Queer Head in that order.

It is easy to see that either you or one of your fellow workers is very much awake when it comes to making a magazine interesting. Certainly there is nothing like a good argument to make people sit up and take notice, particularly if you will print the letters written by the fans who don't write every month. They seem to wait until something jars them out of their complacency, then they do have something to say. If this type of fan can get his letters printed more often, I think that interest in the discussions can be sustained for considerable periods of time and new ones show up more often. In that way, more of the fans will feel that they have a part in the doing of MARVEL.

Regarding the quiz questions and the first spaceships, there seems to be a great deal of disagreement between the science fiction fans and writers as against the latest findings of science in the matter of the nature of so-called space. According to the Rand Corp., which does a lot of experimental and research work for the U.S. Government, the area between the planets that we call space, is not cold at all, but hotter than the hinges of H—! So the error that you detected in the movie *Destination Moon*, turns out to be in reverse—how could the grease used on the radar antennae solidify in such extremely hot conditions? After all, this little incident

was supposedly the reason that they had to crawl all over the outside of the ship in the first place!

On question #6, I am one of those who radically disagree with the accepted so-called scientific answer to whence came man and more specifically whence came man to the American continent in the first place? I subscribe to the school of thought that places credence in the theories of Dr. Churchward and Mu; and the Hermetic philosophy which has been recently corroborated by the readings of Edgar Cayce. So this would give the answer to #6 as: from the continent of Mu, then later from Atlantis.

There is one other matter that I should like to mention that I think is having an insidious psychological effect upon science fiction in general. This is in the current tendency of the writers of establishing a trend of writing that of a definitely pessimistic and cynical nature. It expresses itself in stories where man destroys himself, blows up the world, or degenerates into a lazy good for nothing attitude because in the future all things will be done for him and he won't have to hardly lift his hand. In a certain science fiction magazine, 90% of the stories are of this order and it is acclaimed as one of the best in the field! This type of thinking stuck its insinuating little head into MARVEL this month in the short story Yes And No, whereby the marriage of two people has to be ruled on by a world legislature and the voting of said legislature was governed by nothing approaching sanity.

If this sort of thing is to be a part of science fiction, let it be the villain of the story which has to be circumvented or overcome. Let us still retain some of the old ideals that have stood the test of time, that in the last analysis the mind of thinking man can and does pull himself up by his own bootstraps—even if he does wait until the eleventh hour to become aware of it sometimes. A story is not less interesting because it is optimistic, which is the positive approach to any problem, rather than pessimistic which is a negative attitude and gains nothing but the degradation of all that man and his ideals stand for. So we make mistakes, commit grievous crimes against ourselves and all the laws of nature, but man is capable of and can and must learn to improve himself and his conditions, mentally, physically and

spiritually. Otherwise, why is he here in the first place?

If I were a communist, I think that there would be no better way to attack from within than by spreading such poisonous psychology throughout the thinking curious people of the world who read science fiction. What is that old quotation?—"As a man thinketh, so is he". That is certainly as true today as it ever was—and a hell of a lot more so than people of our times seem to realize!

Well, I hope some of the fans are happy with the cover picture. Personally I don't go for Bok's type of paintings. I like humans to look like humans, the other creatures can look like what they will, but not the humans. The best illustration, I think, for this month, is Napoli's illustration for Yes And No. At least, I like it the best.

The only title I can think of for the Bok cover is "Strolling a Moonscape".

Interesting issue. Many thanks!

EMORY H. MANN  
West Townsend, Mass.

Dear Ed:

After earnest cogitation, my entry for the great cover derby: *Company's Comin'*... Does that look right to you? Or have I an extra apostrophe. Oh, well, the intention is clear and the road to MARVEL must be paved with good intentions.

The August issue was uniformly good... But not excellent. The stories deserve and get three cheers. In the following order, according to me: This Joe, Skag With the Queer Head, Seed, Yes And No, At No Extra Cost, An Easy Little Puzzle (too easy).

My beef (perhaps moan in a minor key would be better) is the lack of reasoning and proper alignment of fact in the regular controversy. It smacked too heavily of an article assignment by the feature editor of a Sunday Supplement. The authors did not believe their own dissertations. Could you truly expect the readers to take too much stock in an argument twisted with tongue in cheek?

Would you consider setting forth an argument, pro's and con's (that damned apostrophe again), and asking for reader contributions, the several finest to be published

three issues following with suitable awards? The level of the contributions might surprise you. Even I... Modesty forbids me to carry the thought further.

The illustrations are okay. The four-color cover... SUPERB. Congrats and be seeing you.

K. WILLIAMSON  
St. John, N. B., Canada

Dear Ed:

First an entry for the naming of the Aug. issue cover. How about "Mars and Earth... Friends!"

Mind if a newly acquired fan makes a few suggestions for your "prozine?" (That word means a professionally published science fiction magazine, if anybody should ask).

First, get rid of Dianetics Controversy. It's awful, truthfully.

Secondly, also get rid of Amazing Science Adventures. It's just as bad.

Thirdly, keep on with the Science Fiction Quiz. It's great. It tests your knowledge of Science.

Last of all, keep up your contests. They're good, especially the prizes.

Now a word to Mr. William Tenn. WHY does it have to be Venus? The spaceship, I mean.

In my estimation, it can't be. Why? Because if you'll just look on page 95 of the Aug. issue of MARVEL, you'll see what I mean. Well, if you don't have a copy handy, I'll tell you. Venus is 67 million miles from the Sun. Meaning it's 26 million miles closer to old Sol than we are. If, as it says on page 95, we were 10 million miles closer we'd have another Ice Age. What would happen if some men in a spaceship were 26 million miles closer. Himmmmmmmm????? It'd either land on Venus as a chunk of ice or hit it as a molten mass of metal!

Now don't get me wrong. I'm not doubting an expert like you; that's just my theory. Sounds logical, doesn't it?

DEAN WIEDERHOLD  
Gary, Indiana

Dear Ed:

It's been several years since I last wrote to a science fiction magazine, but I just must

break my long fast at writing to let you know what I think of your fine magazine.

To begin with, I like your size, and any mag that features the old standby PAUL to illustrate it will get my vote as being best in the field.

There are a lot of good illustrators for sf but none whatever can come up to PAUL. Many fans do not like his work because his characters are like cartoons but I think they're tops. Harrison shows promise and Napoli isn't too bad either, but I would like it if PAUL did the whole mage (even the cover).

I've always admired BOK's work but never thought he'd turn out such a true-to-life background as the one on the current cover. Speaking of the cover, I'll try to give a title to it for your contest....

All I can think of for a title is: "The Martian and the Terran went strolling one day."

Speaking of the Terran, she's quite a cute chick, eh?

Oh! And that brings up another point. There's one thing I can't stand and that is these sf mags with semi-nude women on the covers. They just do not belong with sf. It cheapens it, and scientification the aristocrat of fictions should not ever be cheapened. Am I right?

That about sums it up and don't change anything in MARVEL unless it be more PAUL and bi-monthly.

Here's hoping to your future success,

FRANCIS J. LITZ Rochester, N. Y.

Dear Ed:

Just finished reading the latest issue of MARVEL SCIENCE FICTION and was very pleased with the whole thing. I like to see a magazine strive to improve, but I don't believe in overdoing it. Please keep it just the way it is.

My title for the cover painting is: THE ANT MEN OF ZRETT.

I rate the stories as follows: 1. Seed; 2. Skag With The Queer Head; 3. An Easy Little Puzzle; 4. Yes And No; 5. This Joe; 6. At No Extra Cost.

PFC. JOHN M. FRANCIS, JR.  
U. S. Air Force  
San Antonio, Texas



# MOUNTAINS of the MIND

by **RICHARD  
MATHESON**

## CHAPTER ONE

### THOUGHT AND THOUGHT

**H**ERE, he thought, seeing the ice-crowned mountain line that shouldered the sky, here is the place at last.

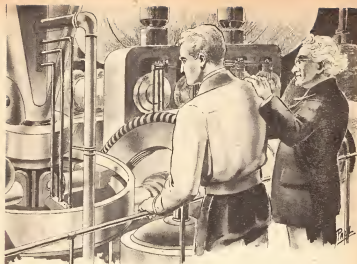
It had been an exhausting quest.

Resting wearily on his throne of crumbling brown rock, he thought of the long days searching, of the silent

lake banks he had trod, eyes fixed on the far-off rising crests. Of the plains he had traversed moving into the rock-strewn foothills. Of the tortuous passes and jagged stone faces whispering with wind.

And of the innumerable pauses he had made to gaze at the pattern of the peaks, checking the witness of his eyes with the chart he carried in the pocket of his heavy windbreaker.

And now he had found the place.



## IT WAS PROBABLY IOWA, HE SAID. WHERE ALL MAN'S IDEAS CAME FROM...

With food and water almost gone, with mind and body drained of energy, he was there.

He sat motionless, looking at it all, a thin slip of breeze ruffling his blonde hair.

Once more he glanced down at the chart in his lap.

There was no doubt. Every dip and convolution was precisely paralleled.

As each segment of the two patterns fell into agreement, excitement mounted despite exhaustion and his fingers grew numb and trembling. He kept shaking his head slowly and incredulously. I've found the place, he thought, but now — *what?* What had he come there to find?

And most of all — *what had impelled him there in the first place?*

*Perhaps the collapse of a man's intellect was directly proportional to its state of development—so that Kopal wasn't losing his mind so much as knowing for the first time its maze of laboratories and cyclotrons and rocket projects . . .*

To these there seemed no answers. He gazed over the far flung bolt of landscape before him.

A million-topped army of pines stood below in thick formation. He felt as though he could reach out his hand and touch them; with a word, command them into fantastic battle.

In these heights, eternal snow covered the undulating slopes and the trees and boulders stood out darkly against the glittering folds.

He raised his eyes.

Farthest away of all and more distant and mysterious to sight and mind were the mountains.

He stared at them, ran his gaze over their massive grey-blue stillness, their towering needle points, their raking falls, their ice-flecked slopes. He kept shaking his head and looking, the answer far beyond him, swathed in mists.

"Mountains of the mind," he said.

And it swept him back in time to the start of it.

\* \* \*

"*Genius in The Waiting Room*," laughed the secretary. "Starring Freddie Kopal."

She thumbed through the bulky pile of charts, her eye on the name line. A smile tugged at her lips.

"Young lady," he said with mock archness, "you apparently have no respect for great minds."

She flashed him another smile, pulled out his chart. "Fredrik Kopal," she recited. "Political Scientist." She made a face at him as he took the chart. "Whoever told you you were a genius, you big bum?" she said.

"I didn't need to be told I was a genius, m'dear."

"Uh! You'll be an impossible boor after this," she said.

"So when shall I pick you up tonight?"

She smiled at him. "At eight—genius, sir."

He spoke under his breath: "A little more of that and I'll take you over my knee and administer some good old-fashioned chastisement." He glanced around at the men sitting on the couches and chairs. "How long, oh lord?" he asked.

She shrugged.

"I don't know, darling, really. Just get yourself a seat and hope for the best."

He smiled hopelessly at her. Then he turned and walked over to an empty leather chair feeling her eyes follow him. He eased down his tall athletic body and stuck the chart beside him.

Then he shook his head in momentary disgust.

It approached the criminal to make all these men wait when they had so much important work to do. Typical college efficiency, he thought, but one would expect a little better from Fort College.

He crossed his legs and sighed.

Here to have our brains tapped, he mused. A body of geniuses, old and getting old, here to let the Bolivian gentleman chart the topography of our intellects.

His gaze wandered over the seated men. Some were reading, some engaged in quiet conversation, some merely staring reflectively at the walls.

They were all here at Fort College for the November Open Science Conference, that yearly function at which

the world's top mentalities were given the run of the place for cooperative and independent venture.

For Barth, sitting across the room, it meant a chance to add, and, possibly, subtract from his growing body of text on photosynthesis.

For Hamm and Woolridge it meant a fascinating month with the finest of electronics equipment in the world.

For Raschler, "the deep one", it meant invigorating social contacts and a little more time for mulling over his world-bewildering Theory of Deviation.

Of course they weren't all physical scientists by any means, Fredrik thought; that would surely defeat the purpose of the conference. Science meant more than science of matter. There is thought and thought, he knew; we cannot live by the atom alone. Music and literature and politics and philosophy et al — they too were integral parts of the whole. To ignore any was to debilitate all.

Then he noticed that Katie was making faces at him again. He smiled and stuck out his tongue a little. She assumed a look of outraged aplomb and looked back to her work.

Frederick slowly took out a cigarette and lit it.

And what does the conference mean to me? he thought. I, who live here all year anyway, teaching political science?

He shrugged. It meant a change of regime, free time, stimulating talk, perhaps a spurt of inspired activity on his eternally unfinished tome *The Political Anatomy*.

But for now, he decided, for the moment it meant lethargy, a smoke

and an excuse to look at the ultra-fine legs of Katie Fisher. He gazed appreciatively and wondered for the several thousandth time: When in the name of sense will we marry and end this agony of waiting?

Looking up to her face, he watched her attempt to look ferocious and an uncontrolled snicker filled his throat. Then, after she went back to her work, he lowered his eyes and picked up a magazine. Body relaxed, he rambled idly through a slightly less than blood-pounding account of *Liver Disease in The Sand Shark*.

\* \* \*

The door opened once more and Dr Alfred Raschler came shuffling out, a smile of delicate whimsey on his seamed face.

He looked over at the seated men and nodded. His voice was quiet and burled with a strong retention of German accent.

"The gentleman from Bolivia had the effrontery to call me a genius," he said to them. They all chuckled as he turned to face Katie.

"This is all?" he asked, as if she were a child, obedient to order.

Katie's face lit up with an almost reverent smile.

"Oh, yes sir, that's all. Thank you for giving us so much of your valuable time." She was almost breathless. "We'll mail a copy of the chart to you in a few days."

Raschler nodded and smiled. "Ja, good. Good." He slid his gnarled hands into the pockets of his dark unpressed coat sweater.

"Well," he said to all of them, "back to the sweat shop." He pro-



nounced them "vell" and "sveat."

As he turned toward the door, his glance settled on Fredrik for a second and their eyes held. Fredrik felt himself tighten momentarily. He watched as the bowed old man pushed through the glass doors and was gone.

Then he grunted to himself. At thirty-seven, he thought, I'm still a hero worshipper.

Yes it was impossible *not* to be in Raschler's case. There was something transcendently powerful and inspiring about the old man. He seemed almost to possess a . . . divinity, Fredrik thought.

"Doctor Kopal," Katie said.

He jerked up his head, coming out of reverie. Abruptly, he struggled to his feet and hurried to the door.

"You forgot your chart, Doctor," Katie said in undisguised pleasure.

"Oh! Of course," he said loudly and hurried back to grab the chart, exchanging glances with the other men. At the door, Katie waited to usher him in, her mouth forcibly pressing out a smile.

"Don't blow up the machine, genius," she whispered.

Fredrik's lips twitched as he walked into the room quickly and Katie closed the door behind him.

"Dr. Kopal." The short, swarthy man extended his hand with a smile. His grip was firm and assured.

"I'm so pleased," he said, "that you could spare the time for my experiment."

Fredrik smiled back. "You're perfectly welcome."

Dr. Marellano waved his hand. "And now, doctor," he said, "would you be so good as to lie down here?

We'll be as quick as possible."

Fredrik sat down on the leather-topped table and lifted up his legs. "Has anyone fallen asleep on you?" he asked, settling himself back on the pillow.

"Oh, yes," Dr. Marellano said, "the older men tend to get drowsy quite easily. But, of course, that is to be expected. I'm sure you will have no trouble staying awake." He smiled. "Unless you were out last night, what do you say — *bowling*?"

As he spoke, the Bolivian doctor was taping tin metal electrodes around Fredrik's scalp. Each electrode was connected by wire to the recording apparatus.

"No howling," Fredrik smiled. He lay still for a moment. Then he asked, "Aren't the currents of the brain rather slight for charting purposes?"

The other man began to insert electrodes into Fredrik's nostrils.

"There we are," he said. "Is that painful?" Fredrik shook his head.

"Why, yes," the doctor went on, "the currents are slight as you say but they become easily measurable when run through a vacuum tube amplifying system." Fredrik nodded.

Then he lay there without a word, staring up at the sun-mottled ceiling as Dr. Marellano adjusted the oscillograph to record the brain fluctuations. Far off, he could hear the heavy throbbing of the generators in the huge Physical Sciences Center. He twitched his nose. Damn electrodes itch me, he thought.

Finally the Bolivian settled back in a chair. Once more he checked all connections. Then he looked at Fredrik.

"And now, Dr. Kopal," he said, "when I ask it, will you please begin to think of your theory on the evolutionary displacement of political purpose?"

Fredrik grunted once and closed his eyes. "I should be delighted," he murmured.

And, on photographic paper, light wrote down the rills and ridges of his concentration.

\* \* \*

It was ten seconds later that Professor Fredrik Kopal of Fort College, Indiana, sensed a marked agitation in his mind and had the inexplicable impression that he was being contacted.

It made his fingers twitch on the couch and caused his heart to beat faster. When it had passed, he felt himself alone again. And the strange words had faded. The words that were:

*Hear us now. For we are with you.*

## CHAPTER TWO

### LEAVE ME BE!

THE large envelope came in the mail two days later.

He left it until last, first reading three personal letters and glancing through an invitation to lecture at a three-day political workshop the following June.

Then, at last, he slit open the large manila holder and took out the smooth-faced chart. Unclipping the brief covering letter of gratitude, he gazed at the pattern of his brain waves.

He smiled and nodded amusedly,

noticing how tight and drawn the pattern was between the two black lines which represented the beginning and end of his concentration on his theory.

The wave line dropped off into a deep precipice at the point where he had relaxed after thirteen seconds of heavy thought.

"So," he murmured.

Then he looked up for a moment, seeming to recall that something odd had happened while he was having his brain waves measured.

He couldn't remember.

Lowering his gaze again, he looked casually at the chart, the fingers of his left hand drumming idly on the table cloth.

Slowly. Almost intangibly. He began to feel the unaccountable throbbing in his mind again.

A frown drew in the muscles of his face. He looked more closely at the chart. His shoulders twisted restlessly. "What in heaven's name . . ." he muttered to himself.

Nervously he put down the chart and, suddenly and for no apparent reason, he saw Katie's face in his mind.

It was moving from him. A twinge of prescience touched him as he watched it drift away like a departing ship, silent in the mists. "Katie," he murmured, seeking vainly to combat, to appraise the overpowering sense of loss he felt.

Almost with belligerence, he looked down at the chart again.

As he did, unexpectedly, the room began to melt and run about him like a delicate wax and he was transported. He stood somewhere else, in a lonely place, where the winds moaned a never-ending dirge and skies were the blue of

frozen things. He shut his eyes and fought to understand, his chest throbbing with sudden alarm.

It was a strange new picture thrown upon the canvas of his mind. He saw vast expanses of earth, pine forests bristling thick and endless snow bound wastes.

His eyes flew open and, raising the chart, he looked at it again, studied it.

Then, abruptly, the entire matter had cleared and become transparent in first meaning; the peaks and the valleys and the sharp cold faces of cliffs.

Almost in awe, he whispered it. "Mountains." And a second later, "*Of the mind.*"

\* \* \*

"Oh, Fred, won't it be wonderful!"

"I never thought my vacation would come. Really, darling, I thought someone had locked it up forever or frozen it in a refrigerator or something. But now it's practically *here!* What a wonderful time we'll have together. I'm so excited about it, I could just explode!"

Music flowed from the bright-hued, frothing juke box, stroking at the air.

Katie held her pliant body close to his as they circled slowly on the dimly lit dance floor. Fredrik felt the warm comforting of her hand on the back of his neck, the tantalizing pressure of her bust against him.

He drew in a heavy breath and kissed her temple gently, pressed his cheek against hers and closed his eyes.

She asked softly, "Why the sigh, genius?"

He felt himself stiffen involuntarily. "Don't call me that," he told her.

"But I'm proud as punch that my

intended is a genius," she laughed.

"You may change your mind."

His voice was a trifle harsh and she drew back from him to look into his eyes curiously.

"What is it, darling?" she asked.

He felt a sudden violent urge to cry aloud, *Leave me be!*

But he didn't know why he felt that way, or whom or *what* he wanted to be free of.

"Let's sit down," he said.

They moved off the dance floor toward their booth. Wordlessly, they slid in across from each other.

"Fred, what is it?" she asked. "Please tell me."

He closed his left hand into a tight fist and stared at the whitening knuckle ridges. "I don't know Katie," he said. "It's so vague and shapeless and . . ." He exhaled wearily. "... and impossible."

She looked over at him in concern.

"Is it something I've done, darling?" she asked. He reached for her right hand quickly and held it in his strong grip.

"No, no, it isn't you," he assured, "you've done nothing wrong."

Her throat contracted. "*What* then?" she asked.

He picked up his glass and took a sip from the drink. "I'm *probably* going mad," he said.

Her eyes never left his. "Why, Fred?" she asked.

He hesitated. Then he spoke, uncertain of her reaction.

"You know that chart you sent me?" he said. "The brain waves," he added as she shook her head.

"Oh. Yes," she nodded. "What about it, Fred?"

"Well I've been . . . I've been *staring* at the damn thing for two days straight now."

She almost smiled but then she saw that he was perfectly serious. "But why?" she asked. "I don't understand."

He pursed his lips slightly. "I don't either . . . exactly," he said, "but there is one thing that becomes clearer and clearer."

He squeezed her hand and ran his gaze over her face, her glossy brown hair.

"What?" she asked him.

"I've got to go and find them," he said.

She stared at him and he felt his stomach sink at her incredulous expression.

"Find whom?" she asked.

"Not *whom*," he said.

Then he clenched his teeth in anger at the intangibility of it all. "But I don't know *that* either," he had to admit. "I don't know what it is I'm supposed to look for."

He looked down at the table and rubbed his left forefinger over the water ring his glass had made. "Mountains, I guess," he said.

"Mountains?"

He told her about the chart.

"I could swear that *somewhere* in the country there's a line of mountains exactly like the line of my brain waves. I have no proof, not even a memory to substantiate the feeling. I've never gone near the mountains in all the years of vacations I spent camping out. Yet, despite that, I'm almost as certain of it as I am that I want you for my wife."

Her fingers tightened in his. "Oh, Fred, I wish I could help you, *really* help you."

"But you do," he said. "You know you do."

"No, I mean about things like this," she said unhappily. "Things I can't understand. Things that happen in your mind. I . . . I'm just not smart enough to help you."

"Darling, it isn't that," he insisted, "not at all. You know how I feel about that. It's your love and your kindness that I want."

He paused and looked down at the table again. "But this is nothing to do with that," he said.

She looked more confused.

"Do you mean it really isn't mental? You feel you have to go searching for an *actual* mountain range?"

"That's right. I don't know why, but I do."

They sat in silence and he looked at the shifting shadows on her face. He lifted her hand and kissed it.

"But I don't want to lose you," he said.

He felt her hand tremble in his. "Lose me?" she asked, her face almost blank.

He bit into his lower lip. "I have *that* feeling too," he said. "I don't know why. I just . . . can't get rid of it. And it's making me miserable."

She watched him as he sat staring moodily at the table surface.

How often had she seen him like that, she wondered, how many terrifying moments had she spent while he was absorbed in silent work? How often had she suffered agonies of loneliness, shut out from him, even as she rested in his arms; how often been the watcher at his fastened door, waiting in sorrowful patience for him to open it and, once more, lead her back into his heart again?

"I've got to do it," he was saying. "I've just got to."

She tried to keep herself from trembling. "If I could only understand it," she said. "Is it only what you say? Only that you think the chart of your brain waves is . . . a picture of mountains? Is it only that?"

He smiled grimly.

"Only that," he said, "the chart *is* a picture of these mountains. And, for some reason, I have to find them."

She sat back against the booth, lost for words. It all seemed so far-fetched and absurdly melodramatic. She felt ill at ease and could not avoid the sickening inclination to believe that he was deceiving her.

"That's the truth?" she said, more to mirror the doubts for her own benefit than to question him.

He looked up quickly. "Why should I lie to you?" he asked, coldness edging into his voice. She closed her eyes and drew in a deep breath. "I don't know, Fred," she said quietly.

He still held her hand tightly.

"Listen to me, darling," he said firmly. "You've got to believe me. I can't explain it, no. But I'm positive that I'm being . . . *driven*, in a sense, to find these mountains. I just know they exist."

He paused. "And I've got to find them," he finished.

She took her hand away slowly.

"We've been through this before, Fredrik," she said.

He tightened as she spoke. She was angry. She always used his full name when she was angry with him.

"You mean you don't believe me, Katie?"

"It isn't a matter of believing or not

believing," she said. "It's more a question of why you get like this. It's not the first time. No, wait before you say anything. It doesn't matter what the circumstances are. What matters is that sometimes you don't belong to me or anyone. You don't even belong to yourself. You're driven, yes, but it's by your own interminable . . . *starvation* for knowledge. And I don't know whether I can bear that."

"Katie, you don't mean that. You wouldn't want me any other way."

Her shoulders slumped defeatedly. "I don't know, I don't know," she said. "All I know is that you're away from me now, suddenly you're a million miles away and I can't stand it."

The music fluttered in and surrounded the silence of their booth.

Fredrik sat looking at her face but she kept her eyes lowered. Her lips had pressed themselves into a thin unattractive line.

He closed his eyes. *Tonight*, the word spoke out in his mind. But is it me? he thought, is it *me* or something beyond me that summons and demands and drives my footsteps to the brink?

"I have to leave tonight," he said, cursing himself immediately for putting it so brutally casual.

She looked up quickly.

"Tonight?"

His hands trembled on the table. "Yes," he said nervously, "I'm afraid I . . . have no choice."

He watched her mouth turn down. After a moment she spoke.

"And where, may I inquire, do you intend going?"

*Katie, don't be flip with me, please!* entreated his mind, *I need your love now, more than ever.*

He shook his head briefly. "I don't know," he said, "but I suppose I'll . . . just keep driving until I find them."

The words sounded so childishly inflated that he wondered how on Earth he could have spoken them at all.

Her face seemed to draw itself together into a hard mask.

"Oh that's a fine plan," she said. "So wonderfully definite."

He felt his muscles clamping in rising anger.

"It's all I can do," he said, controlling himself.

"And how *long* do you intend to be gone?"

"Maybe—" he shrugged helplessly. "Katie, I don't know. Please don't talk like that."

She sat up stiffly, avoiding his eyes. "And I suppose you're aware of the fact that my vacation starts in two days?"

He stared miserably at the table.

"Do you think it hasn't been torturing me that this . . . this *stupid thing* should happen to me just now when we were going to have a week together?"

She leaned toward him. "Then, don't go, darling. If it's so vague and senseless, don't go."

Their eyes held. It was a moment for decision; he felt it keenly. And, felt moreover, that, quivering in the balance was every hope they had for their future together.

He lowered his gaze. "I have to," he said.

She drew her handbag from the table. Reaching down she pulled her coat over her smoothly curved shoulders.

"You'd better take me home," she said.

He sat motionless and numbed. My God, what *is* this, he thought in an-

guish, what is this that drives me from the woman I love?

"Well?" she said.

He pushed up slowly. "All right, I'll take you home," he said. "There's no use talking about it, I guess."

Later, as he swung his small coupe off the highway and headed through the suburbs of Fort, he glanced sideways at her dark silent outline.

"Does this change things so much?" he asked.

She was silent. Her skirt rustled as she shifted restlessly on the seat.

"Doesn't it?" she asked.

His hands gripped the steering wheel tighter. "You do seem a little anxious to end it all," he said.

"*Anxious!*"

She turned brusquely to face him. "Do you really know what you're saying? Do you realize how long we've been planning this week together? Six months, that's how long, ever since we found out that we weren't getting a summer vacation. And now, when it's almost about to happen, you have a brainstorm and decide to leave the college, leave me, leave everything, just so you can go driving around in search of a . . . a *damn mountain!*"

His mouth tightened. "I tried to explain it," he said. "If you'd trusted me, you couldn't believe that I'm doing this just to hurt you."

"What else can I believe?"

"Don't you think you're being just a little vainglorious, Katie?"

She turned away angrily and looked out the window.

"Oh, go on," she said, "go and look for your mountain. But kindly stop asking me if it makes any difference between us."

He pushed down the accelerator irritably. *Mountains . . . mountains . . . mountains* — the word throbbed in his brain like a petulant word of command.

He shook it off angrily. Why do I cultivate such idiocy, he remonstrated himself, how can I, in my right mind, do this to Katie—

He slumped back and stared dully at the dark street rushing underneath the car wheels. *No use, no use at all.*

I am going anyway. I cannot stop it for a moment.

*Hear us now.*

The message touched his brain again as it had twice before.

He embraced it unconsciously and it soothed and relaxed him. It filled him with the irrational, yet wholly definite feeling that he was doing the right thing.

Accordingly, he spoke no more to Katie because he thought there was nothing more to say. They parted in a tense, bewildering silence.

### CHAPTER THREE

#### IS THAT ME?

IT was raining as he packed. Great drops, catapulted by wind, exploded and ran over the windows of his room. He hurried about, his footsteps shuffling on the rug from bureau to bed and back. There seemed no strength in him to stop and reason out his movements. All he could think was that like a flat-faced bead-eyed marionette, he was forcibly impelled on strings that arced down from unsearchable heights.

He paused a moment to check the contents of the duffel bag.

Everything he needed was there, all dragged up or down from the black closet depths. The knapsack, the canteen, the thick blankets, the tent, the cooking utensils, all the musty symbols of summer vacations past. He dropped them again into the deep-throated bag and tightened the drawstrings. Dropping it on his bed, he walked back to the bureau.

Without looking at it, he slid the wave chart into a waterproof holder. Then, taking his fur-collared wind-breaker from the closet, he slid the holder into the deep slash pocket on the right side and tossed the jacket over onto the bed.

He turned and the mirror threw back cold reflections of his agitation.

Is that *me*, he wondered, is that really Fredrik Kopal, thirty-seven, political scientist?

And, for a long incredible moment, he lost the sense of identity, staring curiously at the tall, large-skulled man with the tense expression on his face. Where is he going? — he thought. What fool mission prys him loose from his appointed rounds and sends him off searching in the black of oceaned night?

He blinked. It was him again.

He clenched strong fingers at his sides.

"I'm not going," he said, defying the shapeless power that clung ever near.

But something made his body shudder and he saw himself whiten in the mirror as though suddenly drained of blood. The room flowed like water to his eyes and, once more, he heard the groaning wind and felt the hovering might of silence on far-reaching lands.

He took a heavy breath and turned away from the bureau, head shaking in

sorrow, in defeat.

"Katie, it's no use," he murmured.

If it was the hunger for knowledge that drove him, then it had to be fed. If it was the demanding grasp of his own brain then it had to be obeyed. If it was . . .

Slumped down on the bed, he suddenly drove his fist into the mattress.

"Damn!"

His curse billowed through the scattering dust particles. Bitter rage pulsed through him; rage at the cruelty and egomania of mind. Why was he *forced* to attempt this idiotic feat of adventuring? Why was there no argument, no rational resistance? Why, despite all sense was he leaving her and, thus, callously severing the tissues of their relationship?

Eyes closed, he saw again the frightening vision of her face moving from him. His hands twitched, he almost clawed out to pull her back again.

Then his eyes jerked open and everything had flashed into its proper place.

In the hallway he heard the strident ringing of the telephone.

He sat motionless for a moment. Then he pushed up and his heavy shoes clumped over the floor. The ringing tore shrilly at his ears as he opened the door and moved down the hall.

He dropped his hand and pulled up the receiver. "Yes?"

"Doctor Kopal, this is?"

The voice made him draw taut. His aroused brain struggled, in a fleeting second, to capture the elusive strands of intuition that seemed to place the owner of that voice into the jig-saw puzzle of his plight.

"Yes," he said automatically, "it's me, Doctor Raschler."

"So. You recognize my voice." The old man sounded amused. "You are occupied at this moment, Doctor Kopal?"

Fredrik stirred. "Why do you ask?"

He felt dizzy and confused. His own voice had sounded strange to him, like the rushing throb from an ocean shell.

"A group of us," Raschler said. "There is Doctor Hamm and Doctor Woolridge, Barth, a few others. We are at my rooms having what the youth calls, I think, the 'bull' session."

Fredrik's lips raised slightly.

"We have thought you might like to join," the old man went on. "It goes on possibly for days and days."

Fredrik leaned against the wall, conscious of a keen disappointment. For some reason he had anticipated something different.

"I don't think so," he said wearily.

He stared down the dark hall at the slab of light that fell from his bedroom doorway. "I'm leaving town," he said.

"Ab. . ."

Fredrik caught his breath.

The old man had spoken the word as though, suddenly, the enigma of the universe had been bathed in revealing light.

He waited tensely.

But then Raschler went on about the meeting. "I feel sorry you cannot be here," he said. "It proves itself most interesting."

"I'm sure it does." Fredrik's voice was disheartening now. He was anxious only to leave town. "I regret I have to miss it," he said.

"You will be gone how long?" Raschler asked.

Fredrik wondered vaguely at the old man's curiosity. "A little while," he said. "I'm going . . . on business."



"Then I will see you," said Raschler. Abruptly the phone clicked and Fredrik stood looking at it.

Then he sighed. Slowly he replaced the receiver on the phone cradle and went back to his room.

There he quickly gathered up his things, put out the light and moved into the hall again.

Locking the front door, he ran through the curtain of rain to his coupe which stood black and glistening under the street lamp.

He listened, as he drove, to the crisp sound of his tires on the street, to the tinny thudding of rain on the roof, the rhythmic gasp of the windshield wiper.

They were lonely sounds, all of them.

"Katie," he whispered and stared unhappily at the blackness ahead, seeing the ribbons of rain dance in the wide beaming of his headlights.

It was one minute later that he realized he was almost at her house.

He turned sharply into her block, hands tight on the notched wheel.

Then he pulled up to the curb and switched off the motor. His stomach felt as though it were turning over. Vacillations of resolve tore at his mind. Some power, the unseen one, made his hand keep lifting to the ignition, kept urging him to drive away, drive quickly through the night and to the mountains.

But there were lines of force around her house too.

He looked at it. There was a light in the living room window. It drew in his will like a bulb-trapped moth. Katie was in there.

Katie, whom he loved.

The car door slammed behind him.

He ran through the thick mist of

rain to the porch and stood there in the darkness, shivering, water dripping from his hair and streaking across his brow and temples.

Abruptly he pushed the door bell and heard the muted jangle of it inside. His heart beat rapidly and, when he slid his chilled hands into the pockets of his windbreaker, they twitched as he touched the chart in its holder.

He heard footsteps approaching the door.

God, let it be *her*, he murmured unconsciously, closing his eyes.

The door was pulled open.

"Fredrik!" said Professor Fisher. "Come in, come in."

Fredrik moved into the warm, thick-rugged hallway. "What brings you out this late?" Professor Fisher asked.

"I came to see Katie," Fredrik said quietly.

Professor Fisher nodded. "Oh." He seemed about to say more but then he turned.

"I'll get her," he said and started up the stairs, calling over his shoulder. "Take off your jacket, my boy."

Fredrik unzipped the windbreaker and draped it over the ancient clothes tree by the door. Turning, he glanced into the living room.

At first it didn't strike him.

Then, suddenly, he remembered Raschler's words: *Doctor Hamm and Doctor Woolridge, Barth, a few others.*

Doctor Barth was sitting in the living room reading, a short, smoke-spiraling cigar poised in one hand.

As Fredrik watched him, the strange disquiet filled his mind again. Raschler, Raschler. The name was a disturbing echo down hallways of his mind. What was there about the old man? Why

should he, Fredrik Kopal, feel this odd affinity to the German mathematician? They had hardly spoken except for casual introductions. Their fields had no apparent crossing point. What common ground had politics and physics? And, yet, through some fantastic overleaping of disparities Fredrik felt sharply aware of their closeness. He almost felt that they were . . .

*Brothers.*

It was the only word.

Footsteps on the stairs brought him back and an added surge of despair pressed on him as he realized that, even in her house, he had forgotten her completely during the last few moments. Even coming to see her, loving her and wanting her forgiveness, he had been thinking only of Raschler and this maddening desire for understanding.

Katie had a creamy white robe thrown over her pajamas. Her slippers feet whispered on the carpeted steps as she descended, her father behind her.

Fredrik looked up into her eyes.

Then they stood before each other. She was pale and, when her hand touched his, he felt it, as cold and trembling as his own.

"Hello," she said, very quietly.

Her father brushed past them and, without a word, moved back into the living room.

"Does your father know?" he asked.

She nodded and turned. Fredrik followed her into the study.

She closed the door and faced him, her face tired, the eyes red-rimmed from crying. In the dim light from the wall fixture, her carefully brushed hair shimmered darkly over her shoulders.

He stood restlessly, one hand clasping the other.

"What did . . . what is it?" she asked, trying vainly to speak in an even voice.

He drew in a shuddering breath. "I . . ." he started. He took a hesitant step toward her.

"I had to see you before I went," he said.

Their eyes held. She almost spoke.

Then, suddenly, they were holding each other tightly and her warm cheek pressed against his. He closed his eyes and breathed in the perfume of her silky hair.

"Oh, darling," she murmured. "*Darling.*"

\* \* \*

Arms around each other, they opened the study door.

"It's all right, Fred," she was saying. "I want you to go if it means so much. I can't understand it. I've tried hard, believe me I have. But I want you to do it anyway if you feel you have to . . ."

She leaned against him and kissed his cheek. "But please come back soon," she whispered in his ear. "I'll miss you so."

"I will, Katie," he answered. "I promise I will."

They embraced and kissed. Then, as he drew back, she shook her head in mock dizziness.

"It's gonna be rough," she said, a smile softening her features. He hugged her convulsively.

In the hallway she told him, "Now promise you'll call me very night. Even if you can't find a telephone."

"If I can't find one, I'll build one," he promised, grinning.

She helped him on with his windbreaker. "Good night, where are you

going?" she asked. "You look like a lumberjack."

He shook his head, disturbed again.

"God, I wish I knew," he said. She kissed him. "Never mind," she said.

He half turned then, looking into the living room. "Katie, how long has Doctor Barth been here?" he asked.

"All night as far as I know. He had dinner with us. Why?"

He told her about Raschler's call. "That's strange," she said.

"Where does Doctor Raschler live?" he asked.

"He's staying at the Tiger Hotel," she said. Fredrik nodded. Then he said, "I'd better be getting along."

She pressed against him in alarm, holding tight. After a long moment she drew back, a strained smile on her lips. "You'll call me," she said. "I will," he told her.

"Is it . . . all right for me to tell people where you've gone if they ask?" she asked.

He smiled wryly. "Why not?" he said. "If you don't mind people thinking that your intended is a madman."

She tried to smile as Fredrik kissed her goodbye, as he called into the living room to say goodbye to Barth and Katie's father.

Then she murmured to him as he went out, "*Be careful.*"

It was no good. The reconciliation hadn't helped at all. He was just as sick again as he ran down the walk, drawing up his collar.

Rain spattered off his back as he slid into the car and slammed the door.

His hand hesitated on the ignition key.

*Wait no longer*, someone seemed to order him. He tightened resistingly as

he turned on the motor. I'm going to see the old man first, he resolved. And the struggle began anew.

Then, as the car pulled away from the curb, he glanced at the house and saw her standing in the open doorway, still watching him.

"Goodbye," he whispered.

And he shivered at the mounting terror of the word.

## CHAPTER FOUR

### THROBBING NIGHT

IT proved too powerful. He managed to head the car downtown toward the Tiger Hotel. But the closer he got, the more violent grew the bidding in him to leave town.

Helplessly, he watched the hotel rush past his car window, feeling his foot clamp down involuntarily on the accelerator when he wanted to stop.

Then the hotel, Main Street, were gone.

Robotlike, he sat in the darkness of his car, driving toward the outskirts of town. The glow of passing street lamps splashed over his car, and faded, splashed and faded. Miles fluttering by, thought his mind; and will departing. The invisible fingers drew him on. *We are with you*, came the message from the night.

And he drove. And did not sleep.

About five o'clock the next morning he stopped at a gas station and phoned the Tiger Hotel.

The desk clerk said that Raschler had left the hotel twenty minutes earlier.

"Did he leave any message as to

where he could be reached?"

"No, he didn't," said the man.

Fredrik hung up and went back to his car.

He sat inside, dejectedly, for long minutes.

No hope for it, he finally decided, this has to be a solitary thing.

Shaking his head, he started the motor and drove off.

\* \* \*

He made a point of it. It took all the will power he had remaining but he did it.

Deliberately he turned the car off the highway and ran it slowly up a side road.

Then he stopped the car and sat in the stillness, concentrating.

It was true.

When he left the highway, it was as though he were jumping a track, departing from the influence of a directional beam. Once off it, he knew immediately that he was heading in the wrong direction. The entire thing was incredible, overwhelmingly unreal. But undeniable.

With a restless motion, he switched on the motor, turned the car and drove back onto the highway.

There he was picked up immediately and he relaxed. He kept moving west.

As he drove, he tried to set it all in his mind; the brain waves, the mountains, Raschler, Katie, this driving indomitable urge.

But it was too confusing, a hopeless jumble of tangled, knotted threads. The more he thought about it, the more bewildered he became. Perhaps *I am* mad, the thought occurred more than once.

It seemed highly possible. Maybe, he mused, when a genius goes mad, he chooses the most fantastic path of all for his downward way. Perhaps the collapse of mind was directly proportional to its state of development.

But that was only the sheerest of speculation. Moreover, as strange as it loomed in credibility, he was far more certain of his quest than he was of potential madness.

He was positive that at the end of his search lay not insanity but the most vast of revelations.

So he drove on, stopping once during the afternoon for food and supplies. And, while he drove, the hum of the motor sent his mind idling into shapeless conjurings.

Mostly he thought of Katie and himself, wondering again why they had never married.

More than once it occurred to him, painfully, that they *might* have married many times in the past.

Except for him.

There was the time he had said he needed more time for research on his book. How flimsy an excuse that seemed now. There was the time he had gone traveling about the world, supposedly intent on augmenting the background for his work. But, now, he realized that had had nothing to do with his work. That excuse had been only a clumsy rationalization.

And then there was that night when he had told her with vicious simplicity that their minds could never have a meeting place.

It made him shudder to remember that.

And the recurrent idea that wove itself in and out of his reverie was that

all his excuses had been merely veiled attempts to avoid marriage.

Miles flooded beneath the wheels of his speeding car. He sat hunched and motionless at the wheel.

And, once, when he sensed the message—*We are with you*—he answered weakly—*I hear you* and, almost, he accepted his loss of purpose.

Early in the evening he crossed the state line.

\* \* \*

"Hello?" she said.

"Hello, Katie."

"Fred! Oh, God, I'm so glad you called. Where *are* you?"

"I don't know Katie. Iowa, I think."

She was silent a moment. And, sensing her constraint, he suddenly knew that he wasn't going to tell her anything; not about the waves he traveled on, not about the growing clarity of his mental visions, not about the mounting complexity of the messages he was getting.

"You don't know where you are?" she said.

"No, I don't."

She sighed. "How are you, Fred?"

"I'm all right."

"Have you found what you're looking for yet?"

"No Katie, the mountains aren't . . ."

He hesitated. Then he said, "No, I haven't found anything yet."

"Oh."

Her voice sounded strange to him. It annoyed him. "Are you eating enough?" she was asking. "I hope you're stopping to sleep at night." He leaned against the wall of the phone booth and stared at the chipped mouth-

piece. It was as though Katie were the voice of hidden conscience. It was as though the channel for speech ran only one way and he could not, in any way, dispute her words.

It was silent.

He wondered vaguely what had happened to her. He shook his head dizzily.

Then she called, "Fred?" He shook his head.

"What is it?" he asked.

"What's the matter?"

He tried to speak assuringly but it was no good. "I guess I haven't been sleeping," he said. "I feel a little groggy."

"What! For God's sake, darling, *please* don't drive when you're sleepy. You'll run yourself right off the road."

"All right, Katie, I'll watch out." He felt restless. He wanted to end the conversation and get back on the road.

"Fred, do you . . . do you still believe you're going to find something?"

He stiffened and almost shouted into the receiver—Why don't you stop asking me stupid questions!

"I don't know," he said quietly. "I can't say Katie."

"And you don't know how long you'll be gone?"

His voice flared, "Katie, don't ask me!"

He knew she was almost crying from the way her voice wavered.

"I'm sorry," she said. "I . . . it's just that I miss you so."

He closed his eyes suddenly as her love reached him like a warm touch that penetrated through all the layers of resistance. He felt himself shudder. And suddenly he wanted only to be with her and hold her in his arms.

"Darling, I'm sorry," he said gently. "Believe me. I'd tell you if I knew myself."

But later, when he returned to his car, he knew that he'd lied.

There was no doubt in his mind. He was increasingly certain of his journey.

He had lied to her. And done it, moreover, with a ring of absolute sincerity in his voice, believing his own words.

Grimly he drove through the night, unable to stop, even though his eyes grew heavy and his body ached with weariness.

He couldn't stop. It was impossible.

He kept snapping up his head and staring strainedly at the dark stretches ahead.

\* \* \*

He looked at the dashboard clock and saw that it was almost midnight.

He looked out at the sky. Drifting in ebony night was the full moon. It bathed the highway with effulgence until it looked like a white ribbon stretched across the land.

He stared at it.

Slowly, he began to lose not only the sense of identity but the sense of place. His eyes, half shut, jerked open. His head lolled, he snapped it up right. His eyes were closing, closing . . .

*Throbbing night. Stars like shattered jewels thrown on velvet cushioning. The highway ribbon began to move and roll and twist. He wasn't in a car anymore, he was floating in the air. He was swimming forward in black space, plummeting on, stroking by miles and beneath him was the undulating ribbon in the hair of Earth. Far ahead. He squinted, still swimming. And saw the*

*razor-peaked mountains. They were coming closer, hurtling themselves at him. He tried to stop. He stamped frenziedly with his foot. But there was no brakes, only air. He cursed to himself and clawed out for the emergency brake. His hands closed on something else. It was the chart. He looked at it closely. Why it's luminous, he thought, the peaks and valleys are glowing with lurid phosphorescence. Katie I'm almost there. He tried to call her. He slipped money into the phone but it kept falling out and rolling on the floor of the booth and the booth walls kept shrinking. I can't get to her, he thought. He cried out. I can't reach her! He raised his eyes to look at the mountains flying toward him. All the mountains were Raschler and their peaks were his tangled white hair. Yes! Fredrik screamed defiantly, I am here, here, here . . . Mountains of the mind! They towered over him. Raschler smiled, was gone, smiled, was gone. Fredrik shrieked and threw up his hands to soften the blow of a mountain range falling on his head. We are with you, sang the peaks. We are with you echoed the valleys and the snow fell over his eyes like cold dust, blinding. Stop! he begged. Save me. KATIE! "Katie!"*

He grunted and lurched in the seat, his eyes jerking open. Instinctively his hands clutched at the wheel and he eased the car back to the right side of the highway after groggily throwing it out of the correct lane.

He sighed heavily with relief.

My God, I must have dozed off for a second, he thought. Bad business. She was right. I'd better stop somewhere and sleep.

Then he happened to glance at the clock.

His heart thudded with shock. He almost forgot he was driving as he gaped at the clock.

*It was past three.*

He raised his eyes and stared unbelievably at the dwindling night. The moon had wheeled down and the sky was edged with grey on the horizon.

He felt lost and confused. Pressing one trembling hand over his forehead, he looked at the clock again, then checked its time with his wrist watch.

He murmured shakily, "It's impossible."

Still nervous he stopped at the next motel and slept. Even though he sensed that he could keep on and sleep in the car.

But it was against sanity to go on and he was beginning to clutch desperately at his sanity now.

He made up his mind. He would drive only during the day.

\* \* \*

For the next two days he drove incessantly.

Once he slept five hours and the car drove itself.

\* \* \*

On the evening of the second day, he saw the mountains.

He parked off the rough dirt road in a clump of trees. There, he got out stiffly and gathering his supplies together, made his pack. After that he crawled into the car and slept heavily.

Then, in the early morning, when

the sky was just beginning to brighten, he locked up the car and started on foot toward the distant mountains.

The air was shrill with the singing of birds. Trees stood silent sentinel about him as he walked and, high above, he heard the crying wind; all exactly as in his visions.

\* \* \*

And that was how it started and progressed.

Now he was back.

He stirred on the cold rock. Rising up with a groan, he stretched and looked once more over the vast countryside.

I should be there by morning, he estimated, even though there was no way of positively calculating it. But he knew.

He drew on his pack again and started down the long slope.

Early in the afternoon he began to sense that someone was watching him.

It made his heart beat rapidly. He walked faster, his heavy shoes scrambling over the rock strewn earth.

Now the mountains were beginning to surround him. Like a molecule he moved silently into their great embrace, inching along at the foot of their titanic heights. His eyes moved about searching for signs of life.

But he saw no one.

Late in the evening it began to rain.

Quickly he set up his tent under an overhanging ledge of rock. Inside he ate some cold meat and climbed immediately between the heavy blankets. His eyes shut quickly and he was asleep.

While he slept, the rain splattered

overhead on the rock shelf and ran down and dripped onto his tent. The wind blew clouds of rain against the dark cliff. And there was no life around him anywhere.

But the mountains watched.

## CHAPTER FIVE

### HIEROSOLYMITE

**I**N the morning, as he started up a gradual rise, he saw the figure of a man ahead.

The man was sitting on a large boulder, smoking a pipe. Fredrik could see the tiny wisps of smoke in the crystal air. And he saw that the man waiting for him was wearing a long black overcoat and, on his head, a battered black fedora.

Fredrik moved on, up the sunlit slope. When he was close enough to see the man's face, he halted a moment, smiled. It did not seem strange for some reason now. It fulfilled the design.

He started climbing again. As he came up to the man he said,

"Good morning, Dr. Raschler."

Raschler smiled. "Dr. Kopal," he said. "You are right on time."

"On time?"

"Yes. But sit down and rest for a while."

Fredrik eased himself down beside the old man. Were it not here, he thought, in the silent heart of this countryside, I would think myself insane.

He unbuckled the pack and let it slide off, twisting his shoulders with a grimace. "How did you get here so

quickly?" he asked.

Raschler puffed slowly on his pipe. His eyes crinkled at the corners. "I have been here before, you see," he said. "On my part there was no hesitation."

"Did you drive?"

"I flew. I drove. I walked."

The old man asked to see Fredrik's chart. Fredrik slid it from his pocket and handed it over. The old man looked at it with a smile, then handed it back, "Ja," he said quietly.

"Why did it remind me of these mountains?" Fredrik asked.

"It was supposed to," the old man said. "It is the prime qualification."

"Qualification for what?"

"You will see," Raschler said. "Enough said that waves are cast from this spot in a never-ending stream, designed to touch only those whose brain waves approximate the line of these mountains."

"But that's incredible!"

The old man smiled. "Many things are incredible," he said. "The leaf is incredible. But that does not disturb us."

Fredrik shook his head. He looked around, saw, far off, snow being brushed from the peaks by high wind. He tried hard to think of Katie, tried to align all this with his plans for life with her.

But he couldn't. The two ideas were distinct and separate, without a joining place. He couldn't even think of her. The present was too crowding.

"What if I had lived in Europe?" he asked. "Would the waves still have reached me?"

"But this is not the only center," was all Raschler said.



"And did my car travel on those waves too?"

"No," said the old man, "not on those waves. But there are others."

Fredrik sat silent. He looked down at his hands, parted the fingers wide and stared at them. They were real enough, chapped and dirty-nailed and cold. They were real. It was no dream.

Yet it seemed a dream. To be sitting here in the wilderness with the old physicist, sitting patiently as if this one wild spot were the goal of all effort.

Perhaps it was; he didn't know.

"And what happened before the brain waves were charted?" he asked, unable to sit in silence.

"Then there were other ways. But now we have the brain wave charting and it is easier."

"But how could there be any assurance that brain waves *could* be charted?"

Raschler smiled.

"There are ways," he said.

"You mean the idea was instilled in the minds you wanted it to be instilled in?"

"Who knows where ideas come from?" was all the old man would say. Fredrik turned to face him. He stared at the old man's gentle face. It was still unbelievable. He shook his head.

"But who does these things?" he said. "Who gives men ideas for inventions? Who sends out these waves? Who lives here in the mountains?"

The old man tapped his pipe empty. Then, sliding it into his voluminous coat pocket, he pushed up with a sigh.

"Come, I will show you," he said.

Fredrik stood quickly and the old man began to shuffle up the slope. "You are confused," he was saying, "I

know. But soon you will learn their ways."

"*Their ways?*"

"They have no name," Raschler said. "But we who have been chosen have called them The Great Ones."

\* \* \*

The mountain side moved. It moved like a gargantuan sliding door.

Fredrik gasped. "*My God.*"

Raschler smiled.

"Come," he said.

Silently they moved into the great tunnel before them and, as the huge door thudded shut behind them, the walls began to glow with indirect lighting.

"Under these mountains," Raschler said as they walked, "you will find all the knowledge of the ages, compiled and annotated. Knowledge that begins in the days when Earth was only burning scab, and extends through the eons yet to come, the future . . ."

"The future?" Fredrik felt again a severe need to stop and press his hands against something solid, to do anything to regain some sense of reality.

But as he kept walking beside Dr. Raschler, hearing the old man's words as through a fog.

"You are astounded," Raschler was saying, "of course. It is to be expected. But soon you will accept these things. For even miracles become customary when they are daily happenings."

"Yes," he went on, "here under these vast waves of stone will you find all the accrued wisdom of the past, the present and, I should say, the futures."

"Futures?"

"There are many futures. As many

as there are possibilities."

Fredrik pressed his hand against his temple. "But who could do all this?" he blurted out. "And when? And *why*?"

"All to be answered, Dr. Kopal, all to be answered. *When* the answers are to be made, I cannot tell you. For I have never been told. Indeed I do not feel it necessary to know. Who *are* they? I sometimes think I would rather not know. And to see them? I do not think I would wish it."

"You mean . . . *you've never seen them?*"

"Never. No one has seen them."

"Then how do you know they exist?"

"Look about you," smiled Raschler. "Have we not more than *faith* for evidence of living things unseen?"

Fredrik nodded. "I suppose it's . . . foolish for me to doubt," he said. "And the desire to see them . . . maybe it's only a temporary one. Later, I may . . ." The sentence died. He was thinking, *Katie, if you could only see this.*

Then he felt his stomach muscles tighten. And the question filled his mind: *Will she ever see it?*

Or even *know* of it?

"So you don't know who they are," he said, abstractedly.

They approached a door in the tunnel wall. Raschler told him to leave his pack there. Then he pushed a button and they stood waiting.

"Who they are . . ." Raschler mused. And shrugged.

"For the answer to that," he said, "we must, perhaps, look to the skies."

\* \* \*

The elevator hummed smoothly up the shaft.



It seemed to Fredrik that they had ascended more than a thousand feet. The sense of unreality was smothering him. All he could think was that he was in the midst of something beyond all the powers of Earth.

"There is not the time to show you all of it now," Raschler was saying quietly, "but I will show you, for this time, those rooms where you will study your particular field, where you will refine your intelligence of the political science."

He smiled.

"I think you will see things you have never even dreamed of, Doctor. Or at most, only *dreamed* of. For instance, would it interest you, to see the Roman Senate in action? The drawing up of the Magna Carta? The signing of the Declaration of Independence?"

"What . . . ?"

Raschler smiled. "You will see them," he said, "and more. For here your knowledge will not be drawn completely from the written word.

Your eye will see the *living* past. There will be no middleman historian to cloud your mind with bias and inaccurate report."

Fredrik slumped against the elevator wall weakly. He looked down over his rough clothes, noticed how the caked mud on his shoes was dirtying the immaculate floor. Then he shook his head, digging the nails into his palms. "It's fantastic," he said. "I think I could believe anything now."

"That is a reason you are here," Raschler said. "There are not many men left who could believe anything. Even for a little while."

The elevator slowed down and stopped. The door opened without a sound and they moved into a bright hallway.

Fredrik looked around in astonishment. He kept looking around trying to make certain it was real.

Raschler chuckled as they walked. "You should have seen *me* gape," he said, "when first I came here. Never had I dreamed of such things. I was like a country bumpkin."

Fredrik made a sound of wonder. "So am I," he said.

There were rooms along the hallway. Fredrik looked in through the glass doors as they passed. He saw study desks with loud speakers over each one and, spaced along the walls, small screens that looked like television receivers.

The rooms were all empty.

"Is there no one here?" he asked.

"Not now. It is not the time for study."

"But no workers, no . . . librarians, maintenance men?"

Raschler shook his head with a smile.

"It is unnecessary," he said. "All is automatic. Come, I will show you."

They went into one of the rooms and Raschler led him to a desk. Fredrik saw that underneath the wall speaker were two slots.

"What book would you like?" Raschler asked.

Fredrik tried to think. "I . . . don't know," he said.

"Think of any book. Something hard to find in other libraries."

Fredrik thought. Then he shrugged. "*Imperialism* by Lenin," he said. Raschler told him to repeat the title into the speaker. Almost before the words were out of Fredrik's mouth the book had slipped into the top slot. Fredrik picked it up and held it in his hands incredulously.

"Is there any book you cannot remember the title of?" Raschler asked.

"Plenty of them," said Fredrik, still bemused.

"Describe one of them. In very general terms."

Fredrik scratched his head. "Well," he said, feeling dizzy and floating, "there was a book I read once. Something about the Crusades." Raschler pointed to the speaker. Fredrik spoke into it. "I don't remember much about it. It told about a peasant's march and . . . about the betrayal of some expedition. I really don't . . ."

A swishing sound made him stop talking.

Raschler held a book in his hands.

Fredrik took it and stared at the title. "*Hierosolymita*," he read, "by Ekkehardus. My God, that's it!"

"Here," said the old man. He handed two slips of paper to Fredrik. Printed on them were the titles of correla-

tive texts for the two books Fredrik had asked for.

"They come with the books," said Raschler.

Fredrik stood there shaking his head. Then, weakly, he held out the books to Raschler. The old man took them and slipped them into the lower slot and the books were sucked away with a hydraulic gasp.

"Come, let us sit a while," Raschler said. "I am a little tired."

They turned away from the book chutes. Fredrik looked at the television-like screens. "You will have plenty of time for that," Raschler promised, as they headed for a group of chairs and couches at the end of the room.

"Beginning next summer," Raschler said, "you will begin spending your vacations here in the mountains. You will learn not only your own field but others. You cannot be completely a specialist. Those who are to aid must appreciate all facets of nature and man."

"Aid?" Fredrik asked. "Who am I to aid?"

"A very sick patient," Raschler said as they reached the chairs. The old man took off his overcoat and hat and dropped them on a chair.

"The world," he said, sinking down to rest.

Fredrik took off his jacket and sat on another chair across from the old man, his eyes never moving from Raschler's features.

"You will aid in controlling the world," Raschler said.

"The world is to be controlled?"

"The world *has* been controlled for millions of years. But only a few know of it. It is a subtle management."

Fredrik sank back in his chair. "Sub-

tle," he almost scoffed. "Too subtle. Man has had an awful amount of leeway to botch his birthright."

The old man was re-lighting his pipe. Fredrik looked around. As he smelled the strong odor of tobacco he was suddenly aware again of the two of them in their rough clothes contrasting sharply with the shiny modernity of the room.

Raschler went on speaking and he turned back.

"The job is, as you say, botched. And that is the very reason why our work looms so important now. Now that man makes for himself the most dreadful toys of all. Now that he has learned to sever the atom before he has learned to know himself in the slightest. Now when tyranny blows like a rank wind over the Earth. Now that intolerance and bigotry and greed and injustice are the crops that man reaps in the autumn of his existence.

"Now must our purpose be strong. We have in our hands the greatest minds in the world today. And willingness to profit from the greatest minds of yesterday. Together, these minds work for peace, using their days, spent and yet to come, to mend the undoing of other men who seek always to regress themselves and the world's people to the animal state where they began."

## CHAPTER SIX

### THE MOUNTAINS

THEY stood together in a massive tapering cavern.

"Those are the wave machines," said

Raschler. Pointing to the machinery.

Fredrik looked down from the high catwalk. He felt as though he had suddenly shrunk to miniscule proportions. Below, he saw the machines, gigantic, metal-encased machines. The air was alive with their ceaseless humming. He could feel it in his brain, in his flesh, in the running of his blood.

"And they reached me," he said, half to himself, "over a thousand miles away."

Raschler nodded silently.

It made Fredrik dizzy to stand there and feel the throbbing in his body as though the waves were like invisible winds buffeting him. He grabbed onto the guide rail and weaved a little.

Raschler took his arm and they moved along the catwalk to the exit.

"You will get used to it," the old man said, "in time."

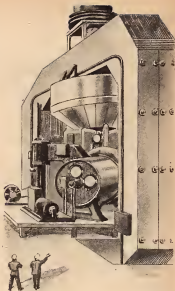
Fredrik shook his head.

"I've *seen* these things," he said, "but I still can't believe it's me here. Why *me*? Why aren't those other men here instead? Barth, Hamm, Smith, Grisby; they're all more educated men than I."

"It is not just knowledge that is sought," Raschler said as they walked, "not only brains crammed with facts. Facts are an easy commodity. And if they were all that was needed to guide the world, then the job could be effected with calculating machines. For they are swollen with fact and gifted with immutable memory.

"But more is needed. The need is for minds that are untrammelled and free to learn. Minds that are flexible." He smiled, "There are drudges in the genius set too, you know."

They reached the elevator and moved into its dim interior.



"No," said the old man as the door slid shut, "yours is the sort of brain they seek. You may doubt it now but you will see, at length, that this is so. Yours is a mind which can, upon receipt of information conflicting with the accepted fact of, even, centuries, make a palimpsest of itself and begin again. It is that sort of mind that the chosen must possess."

"Will I ever meet these . . . chosen?"

"Some of them," said Raschler. "Those you study with."

"And what is your function in all this?" Fredrik asked.

"I am, what you might call, the guide for this center."

Fredrik was silent a while, thinking once more of the mountains, honey-combed with rooms and laboratories and huge testing grounds and living quarters. He would see them all in time: the cyclotrons, the fission piles, the rocket projects, the television that showed the past...all within the mountains.

He looked at Raschler. The old man was standing bowed, his calm eyes gazing reflectively at the floor.

"Tell me, Dr. Raschler," Fredrik said. "Why did you say you were with those men the other night?"

Raschler looked up with a chuckle.

"I wanted to find out if you were going here," he said. "A childlike fancy, I admit. And I am no good at lying; this is my one virtue. Besides that, I did not believe you would be able to overcome the power of the waves. It is the first time I can remember it happening. However," he said, "it is a promising sign of your mental strength."

They smiled at one another. It was the first time, Fredrik thought, the first time we have been personally close.

"And then," Raschler said, more soberly now, "it will probably always be thus. When you are not concentrating on your work, your thoughts will likely return to your Katie. It is the price you must pay."

Fredrik tightened. "Price?" His voice was thin.

Raschler looked at him.

"Ah, but of course you do not realize it yet," he said. "It will be always impossible that you marry her."

It seemed to Fredrik that the elevator was shaking. Suddenly his legs felt weak. He placed the palm of one shak-

ing hand against the wall.

"Why?" he asked.

"Think," said the old man. "Can they risk this venture so that we may marry?" He shook his head. "They cannot. There are risks enough as it is. This would threaten their work too much. So none of us have married. It is not an easy thing to forego . . . but we must."

"But all those years ahead . . .!"

"I know," said the old man. "Believe me. I know."

Fredrik twisted around painfully. Then, as the elevator slowed down and stopped, he pushed through the opening doorway and moved into the tunnel they had first entered.

He strode dizzily across the leveled stone walk, then staggered against one wall as the tunnel seemed to whirl about him. He stood there breathing heavily as Raschler came up behind him, carrying the pack.

"Why did I wait?" Fredrik's voice was bitter. "I might have married long ago. Then your Great Ones wouldn't want me. But I'd have Katie."

"Then why did you always put it off?" Raschler asked.

"I don't know. I was a fool."

Then, as Fredrik stared at the wall, a fantastic idea suddenly tore at his brain. He whirled and stared at the old man, his muscles knotting.

"How do you know I always put it off?" he asked. Raschler didn't answer. He tried to hand Fredrik the pack but Fredrik dropped it on the tunnel floor.

"Are you trying to tell me I was driven to it!" he cried.

The old man touched his arm.

"It is not so bad as that," he said gently.

"Not so bad!" snapped Fredrik, tearing away. He walked down the tunnel, then turned suddenly.

"That speaks well for your *Great Ones*," he said angrily. "If they respect my mind so much, couldn't they even trust it to make the decision of whether I marry or not?"

"The mind and the emotions," answered Raschler, "are incompatible."

Fredrik didn't listen. "I suppose it was better that I was a *robot*," he said. "Oh, it does a man *good* to discover that what he thought was free will was nothing but external mechanics. It enables a man!"

"You were free in other respects," said Raschler, picking up the pack again.

"Free!" Fredrik turned his back. "How do I know I was free?"

Raschler walked around him and faced him. Fredrik noticed how the old man's lips were pressed together, giving him a rare and unfamiliar expression of sternness. The gentle eyes were burning.

"Listen to me," he said authoritatively. "What is all this wailing for freedom? Why do you, why do *all* the peoples howl for freedom?"

"Is it possible? No, *never*!"

"For are we not subject to the air, to the sea tides, to the silent tracking of the stars? Are we not subject to the world and all its weakness? Are we not insignificant before nature? Are we not the puppets of economy and politics and religion and all?"

"And are we not subject to our fellow man? Do we not, willfully, limit ourselves in order that we may turn our backs away from him without fear?

Do we not, each day, walk in marked-out patterns, *willingly*?"

"And, most of all, are we not subject to ourselves, torn between the failing powers of our intellect and the driving of our body and its urges.

"Can we ask for freedom then? Where is the dividing line between free and slave? Do we even know what freedom *is*?"

Fredrik was silent a moment, looking into the old man's eyes. Then he lowered his gaze and sighed. He took the pack from Raschler's hands. "Yes," he said. "Of course. I know."

Side by side they started down the tunnel length.

Now he understood — why he had never married, why he had seen her drifting from him and felt the unutterable horror of knowing the future.

"Never to marry her," he said. "How do I tell her? With what words?"

"You will find a way," Raschler said. "You did before. It may be that in the final moment you will not even realize exactly why you are doing it."

Fredrik shook his head. "No," he said, "I'll always know." And he looked around the tunnel walls and thought of everything he'd seen.

"For this," he murmured.

"Nothing that affects the emotions is ever easy," Raschler was saying. "I remember . . . Elizabeth. Ja, to this day. And that was fifty years ago."

Fredrik looked at the old man with a new interest.

"I still remember," said Raschler. "Late at night mostly. And, if I do not realize and end it quickly, my mind slips into a reverie. And I see her face again. Exactly as she was. She . . ." The old man's throat moved.

# DOVER SPARGILL'S GHASTLY FLOATER *by JACK VANCE*



*When Dover saw a good thing, he went after it, got it. What looked good to him right now, for example, was the moon. . . .*

**D**OVER SPARGILL, age twenty-one, paced the hearth, slapping his jodhpurs with a riding crop. Hunched in a wingback chair to the side, Attorney James Offbold turned up his eyes as if seeking divine support.

Dover paused in midstride; Attorney Offbold's expression at once became attentive: this insufferable young ass represented thirty thousand dollars a year in fees. Otherwise, Mr. Offbold would have sweat in Gehenna before

crossing the street at Dover Spargill's bidding.

"That's the whole affair, then?" inquired Dover with a smart slap at his boots.

"That's the entire document, Mr. Spargill, and may I offer my heartfelt congratulations?"

Dover paused in his stride, turned his head in inquiry. "Congratulations? What for?"

"The fact that, now you are of age,

you become one of the richest men in the world."

"Oh, the money." Dover flicked his riding-crop to the side. Wealth occupied small place in his thoughts, the gesture implied. "Certainly it's a help; I won't have to worry about making it myself. Although I sometimes think my father was rather unimaginative; time and time again I've pointed out ways of doubling his fortune."

Offbold coughed, recalling tiger-eyed old Howard Spargill and his canny manipulations. "Well, I can't quite agree with you, Mr. Spargill; your father was certainly the smartest business man of his day. He started out a prospector and wound up owning Moon Mines, almost a third of the entire moon."

Dover shook his head, pursed his lips. "He also allowed Thornton Bray to organize the other holdings into the Lunar Mineral Cooperative, when he could easily have bought up the claims himself."

Offbold remarked rather loftily, "Don't you think that gaining title to a third of the moon is enough? An area larger than all of Europe?"

Dover frowned. "Enough" is a word inapplicable in modern commercial context, as I think you should be the first to acknowledge, Mr. Offbold."

Offbold made a grumbling noise in his throat, sat staring glumly into the fire while Dover proceeded to develop the argument, emphasizing salient points with motions of the riding crop. He explained that in the upper financial reaches, the accumulation of wealth was a game requiring little more skill than the manipulation of a pin-ball machine. Offbold nodded jerkily, final-

ly snapped the lock on his brief-case and rose to his feet.

"Now then, Mr. Spargill, I'll say goodbye; you'll probably have plans for dinner."

Dover conducted him to the door. Offbold turned for a last set of reminders.

"No doubt, Mr. Spargill, you'll be approached by promoters and confidence men; I scarcely need recommend caution to one of your—" he winced, "—acumen."

Dover nodded briskly.

"But in any event, I will perform the formality. The mines are capably managed by the existing staff; the terrestrial interests are under the stewardship of Calmus Associates. I strongly advise against any changes or any new undertakings. If you are approached by anyone wanting money on any pretext whatever—refer him to me, and I will tick him off properly."

Offbold continued on these lines for a moment or two, while Dover, listening with half-closed eyes, swung his riding crop back and forth.

Offbold finally shook hands and departed. Dover watched him out to his cab.

"Bumbling old idiot. . ." He slapped at his boots. "He means well, no doubt."

Thornton Bray, chairman of the Board of Directors for Lunar Mines Cooperative, was a large man, florid and moist as half a watermelon. He had prominent eyes without lashes; his cheeks were smooth and plump as a baby's buttocks. Tucking the signed agreement in his pocket he shook his head with a rueful smirk.



"She was a lovely girl," he said.

Fredrik felt lost and despairing. Raschler still remembered. After fifty years. How long would *he* remember?

"And aren't you ever sorry? Have you received enough in return?"

Raschler smiled, a little sadly.

"I have no answer for you, Dr. Kopal," he said. "You might think that I should say with definite purpose — Ja, I have found more than adequate recompense for my work, in the knowledge that I am doing for mankind what most I can.

"But that would only be personal judgment," he said. "What can I state but what I believe? And, if I believe that duty toward my fellow man is more important than personal feeling — is it any more than opinion? It may be only rationalization born of old age. Who knows? Whether it is because my body is no longer torn by personal desire. Or whether it is the weakness of . . . impending senility."

"No," Fredrik said. Definitely.

"Ja, it may be, it may be." Raschler said. Then he raised his eyes. "But what am I brooding on?" he chuckled. "There is life in the old boy yet. And much left to do."

He patted Fredrik's shoulder.

"There will be recompense, rest assured. It will be hard of course. But it is something you must face as we all have faced it."

They reached the end of the tunnel and stood waiting for the door to slide open.

"The choice was made for me when I was thirty-one," Raschler said, "and I do not regret it. But I cannot say there were never nights when I could have wept for loneliness." He smiled sadly.

"We are not gods," he said.

The sunlight poured in on them like a benefaction and they moved out into the cold, crystalline air. It surrounded them and filled their brains and bodies with its icy fragrance. They began walking slowly down the hill.

Fredrik looked around at the country and at the mountains pointing silent peaks to the skies. I will go to her, he thought, and will not speak of it. And the years will pass. And, gradually, we will drift apart, growing older, never having life together. The thoughts made him feel a rising heat of anguish in his body.

He clenched his fists. "I wish," he said, "that the words in my mind had not been '*Hear us now*'. I wish they had been '*Hear me now*'. For I am with you."

The old man kept looking ahead, eyes bright.

"Who can say that this is not yearning for a false comfort which binds the hands?" he said. "Who can claim that it is more than just a wish, a dream, a child cry in the night; for love, for full and complete protection?"

"We are not, you and I and all of us, permitted this solace, this hope. Believe what we may, our Sunday clothes cannot be worn. They must be put away and forgotten. For us there is the up-rolled sleeve and the *will* to make our world finer.

"For us, my boy, must be the practical dedication. For us there can be no strength in plucking at the heavens with fingers of desire.

"This is our command . . ."

Alfred Raschler raised up his arms.

"*Look to the Earth!*" he cried. "It is our only home . . ."

"Yes sir, a chip off the old block. I'm afraid I overshot myself trying to out-deal you."

Dover let the smoke of an expensive cigar trickle from the corner of his mouth. He adopted a careless manner, as if to deprecate his victory over Bray and Lunar Mineral Cooperative.

"Yes, sir," went on Bray, "you're a big man now. You'll go down in history. First man holding title to an entire world. Think of it! Fifty-nine million square miles! Lord of all you survey!"

Dover glanced to the three-foot globe of the moon on his desk. The surface was divided into irregular areas tinted in gray-blue and gray, distinguishing Moon Mines from the Lunar Mineral Cooperative.

"Yes, she'll be all one color now. I wonder..." He paused. "I supposed it would hardly be in good taste."

"What's that?"

"Change the name from 'Moon' to 'Spargill'."

Bray reflected. "You'd have your work cut out for you." He shook hands, with a hearty jerking motion. "Well, I wish you luck, Mr. Spargill." He gave his head an admiring shake. "Not that you need it, with that whipsaw brain of yours."

Dover gestured affably with his cigar. "I see a good thing, I go after it, I get it."

"Good-day then, Mr. Spargill."

Dover twitched his hand in a jaunty salute, turned back to the globe.

A moment later the visiphone buzzed.

Dover spoke over his shoulder. "Yes?"

"Mr. Offbold, sir," came the voice

of his confidential secretary.

Dover yawned, returned to his desk. "I'll speak to him."

The screen revealed a face contorted by anger and desperation. "Quick," cried Mr. Offbold, "you haven't signed any papers, have you?"

Dover put his feet on the desk, flicked the ash from his cigar. "I've just concluded an advantageous deal, if that's what you mean. Very far-reaching."

Offbold's face sagged. "Tell me the worst..."

"Moon Mines Company now is legal owner to 59 million square miles, 42 billion cubic miles,  $5 \times 10^{18}$  tons of satellite. In short, we've bought out the Cooperative. I'm sole owner to the moon."

Offbold's eyes brimmed with tears. "Tell me, what did you pay? How much?"

"No small sum," admitted Dover. "But I've been to the moon, I've seen the ore reserves on our land and on the Cooperative land and I'll tell you, Offbold, we've come out to the good."

"How much?"

"Oh—" Dover puffed hard at his cigar—"200 million cash."

Offbold put his hand to his forehead.

"And the Antarctic Energy interest."

"Oh!"

Dover inquired with asperity, "What's the matter with you, Offbold?"

Offbold heaved a deep sigh. "Now you own the moon, what are you going to do with it?"

"Why, continue mining it, naturally."

"You young fool!" roared Offbold.

"Don't you ever read the papers?"

"Certainly, whenever I have time."

"Well, take time now!" The screen went dark.

"Miss Foresythé," called Dover.

"Yes, Mr. Spargill?"

"The afternoon journal, if you please."

The screen glowed. Dover's eyes went to the lead story.



SCIENCE UNVEILS NEW BOMBHELL  
TRANSMUTATION PROCESS  
ANNOUNCED

- A method for mass conversion of one element into another has been announced today by Frederick Dexter, chairman of the Applied Research Foundation. Eminent minds claim the discovery will bring about social changes comparable to the Industrial Revolution.

Dexter made the historic announcement at a press conference this morning. "The device operates on a self-sustaining principle; that is to say, no outside energy is required, provided that a correct internal balancing according to established atomic theory is maintained. A condition equivalent to a temperature of hundreds of millions of degrees is used, but the energy produced—by either fusion or fission—is absorbed by the balancing process, and the cell remains at near-room temperature.

Dexter revealed that the Foundation itself will manufacture and distribute the transmutation units. Production will begin at once, Dexter announced, in sizes varying from household devices up to monsters capable of gulping many tons a minute.

Dexter was asked as to the techno-

logical and economic effects of the discovery. "It is my opinion," he said, "that we are entering a new Golden Age. Platinum will be as cheap as iron; we can now utilize the wastes and slag piles of the already antiquated chemical purification systems to obtain an abundance of pure materials. Mines of course will be—"



Dover said politely, "You may turn off the screen, Miss Foresythé."

He walked slowly to the three-foot globe, caused it to spin, and the pocked surface rasped the palm of his hand. "59 million square miles," mused Dover. "42 billion—"

"Mr. Spargill," came the voice of his secretary. "Mr. Offbold is back on the screen."

"Yes," said Dover. "I'll see him."

Mr. Offbold had himself under restraint; only the swelling of his neck betrayed the cost at which control had been achieved. He spoke in a labored voice, each word carefully enunciated.

"Mr. Spargill, it is my duty to reveal to you the exact state of your affairs. First, Moon Mines is worth nothing. Nil. Your new acquisition, the Lunar Mineral Cooperative, is likewise valueless."

"But—I own the whole satellite!" protested Dover.

Mr. Offbold's eyes glittered, his lip curled tartly. "You could show title to the entire Magellanic Cloud, and it wouldn't affect your bank credit a nickel's worth."

Dover mulled over the situation.

"You could not sell the entire moon for ten dollars," barked Offbold. "No, excuse me, I take that back. No doubt there are spendthrift college boys who

would offer you ten, perhaps twenty dollars, if only for the unique distinction of owning the moon. If you receive any such offers, I advise you to close; it is the only wise in which the moon has transactional value. So. We write off Moon Mines, Lunar Cooperative, and Antarctic Energy from your assets. Now—200 million dollars cash.

"There is perhaps 70 or 80 million dollars fluid, in various depreciation, building, amortization funds, etcetera. I have made a rough calculation, and find that when you have sold other holdings sufficient to pay the balance you will have left—" he paused impressively—"the South Sahara Pest Control Agency at Timbuctoo, and a considerable acreage in North Arizona, both raked by your father in payment of otherwise uncollectible debts."

"Sell them both," Dover directed him. "Sell everything. Pay all the bills and deposit the balance to my personal account." He added in a brave voice, "Everything is turning out very well, just as I planned, in fact..."

"I fail to understand you," declared Offbold icily.

Dover's voice came hollowly. "Well, every once in a while a shaking down is good for a great organization. Tones it up, so to speak..."

Offbold lapsed into the vernacular. "You got shook down, Mr. Spargill, you got shook down."

\* \* \*

Roger Lambro, during a mid-afternoon conversation with Miss Deborah Fowler on the Tivoli Terrace, asked, "Where in the world is Dover Spargill these days? Haven't seen the chap in ages."

Miss Fowler absently shook her

head. "He's dropped out of the picture. I've heard rumors..." She stopped short, unwilling to pass on unpleasant gossip.

Roger Lambro was not quite so delicate. "Oh?"

She twirled the stem of her Martini glass. "Well—they say that after he pulled that ghastly floater, he went out to live on his property." She raised her beautiful eyes to where the moon hung pale as an oyster in the afternoon sky. "Just think, Roger, perhaps he's up there right now, looking down on us..."

\* \* \*

Thornton Bray stood on the marble plaza of his villa at Lake Maggiore, an after-dinner Armagnac in one hand, a Rosa Panatela Suprema in the other. He was entertaining a group of business associates with an anecdote of his business career.

"—I might have been more charitable except this young ass, not dry behind the ears, thought all the time he was doing me. *Me*, Thornton Bray!" Bray laughed quietly. "Thought he was getting something for nothing. So I played him along; after all, business is business. He made the break, I followed through... Yes, sir, I wish I could have seen his face when he first felt the clinch."

"Speaking of the moon," said one of his friends, "she certainly looks fine tonight. Can't say as I've ever seen her looking quite so—well, calm, pearly."

Thornton Bray glanced up to the full moon. "Yes, she's beautiful. From down here, that is. If you've ever mined up there, you come back to Earth with different ideas. A devilish place, bleak, arid."

"Funny color to it," observed another member of the party. "Green and blue and pink, all at once."

Bray remonstrated playfully. "Come now, Jonesy. You've been dipping your beak more than is good for you... Have another? By Golly, I think I'll join you."

\* \* \*

Cornelius Armitage, professor of Astronomy at Hale University, muttered waspishly under his breath, wiped the eyepiece of the telescope with a bit of floss.

A teaching assistant sat nearby counting stars in a sky-sample. "What's the trouble?"

"Steam in the lens, a frightful condition. The moon looks all fuzzy." He inspected the glass. "There, that's better."

He bent once more to his observations.

The teaching assistant looked up at a new sound. Professor Armitage was sitting bolt upright, his eyeglasses on the table, rubbing his eyes, blinking. "I've been reading far too much; got to take it a little easier."

"All done for the night?" inquired the teaching assistant.

Professor Armitage nodded wearily. "I'm just too tired and bleary-eyed."

\* \* \*

Lieutenant MacLeod, overlooking a student's work at the Maritime Institute, shook his head indulgently. "Those figures would set us three hundred miles inland. You've probably failed to correct for refraction."

Cadet Glasskamp set his lips rebelliously. The problem was futile in any event; celestial navigation was seldom used this day of loran and automatic

piloting. Lunar occultation of stars to determine Greenwich time was three centuries antiquated; the exercise was no more than drudgery.

Lieutenant MacLeod admitted as much, but he claimed that working the difficult old systems clarified the primary concepts of hour angle, declination, right ascension, local time, and the like, as did none of the modern short-cut methods.

Cadet Glasskamp bent over his problem. Twenty minutes later he looked up. "I can't find anything wrong here. Might have been an error in the observation."

"Nonsense," said the lieutenant, "I caught the sight myself." Nevertheless he checked on Glasskamp's figures, once, twice, a third time, and finally opening the Nautical Almanac, calculated the time of occultation.

He chewed his lip in amazement. "Twenty-two minutes? I don't believe it. That shot was right on the nose."

"Perhaps you didn't allow for refraction of the star's light around the moon."

Lieutenant MacLeod gave Cadet Glasskamp a pitying look. "Refraction occurs when light passes through an atmosphere. There's no atmosphere on the moon—although if there were—" he calculated under his breath—"the moon moves half a degree an hour, that's thirty minutes. Earth atmosphere refracts a thousand seconds; if there were an atmosphere dense as Earth's on the moon, you'd have to double it, light passing through twice. Two thousand. Say twelve hundred—that's twenty minutes. If so—that would create forty chronological minutes, at half a degree per hour. Apparently," said

the lieutenant jocularly, "we've discovered that the moon has an atmosphere roughly half as dense as the Earth's."

Sunday morning breakfast in the home of Sir Brampton Pasmore moved along its usual lazy routine. Sir Brampton read a favorite technical journal with his kippers; Lady Iris scanned the *Times Magazine*.

Lady Iris uttered an amused exclamation. "Here's something in your field, my dear." She read. "Does the Moon Have an Atmosphere? Strange Signs and Portents'."

"Pooh," scoffed Sir Brampton. "I marvel at the *Times* for publishing that yellow sensational balderdash. Expect that stuff from the Americans . . ."

Lady Iris knitted her brows. "They seem perfectly serious. They speak of meteor trails appearing."

"Ridiculous," said Sir Brampton, returning to his paper. "It hasn't been ten years since the moon was extensively explored for minerals, before transmuters, of course. There certainly was no atmosphere then; why should there be now?"

Lady Iris shook her head doubtfully. "Couldn't someone give the moon an atmosphere?"

"Impractical, my dear," Sir Brampton murmured.

"I don't see why."

Sir Brampton laid aside his paper. "It's a scientific matter, dear, that I'm not sure you'd understand."

Lady Iris bridled sharply. "Are you by any chance suggesting—"

"No, naturally not," Sir Brampton said hurriedly. "What I meant was . . .

Oh, well, it's a matter of escape velocity of a celestial body, and the molecular motion of gases. Lunar gravity is insufficiently powerful to retain an atmosphere, at least for any length of time: the molecules move at sufficient speed to escape into space. Hydrogen would whiff off at once. Oxygen and nitrogen—well, I believe they'd probably last longer, perhaps years, but eventually they'd escape. So you see, an atmosphere on the moon just isn't practical.

Lady Iris tapped her paper with a stubborn finger. "It says in the *Times* there's an atmosphere. That means it's there. The *Times* is never wrong. Why doesn't somebody drop by and find out for sure?"

Sir Brampton sighed. "The moon doesn't interest anyone any more, my dear. Martian ruins are the current excitement. The moon is uncomfortable and dangerous, there's nothing to be learned, and now that transmutation supplies all our mineral wants, there's no reason whatever to visit the moon . . . Besides, I understand that some crank with legal title discourages trespassing; he has a special patrol that turns back visitors."

"Well, well, well, breathed lovely Deborah Fowler Lambro, to her husband Roger. "Remember Dover Spargill? Just look at this!"

She handed across the bulletin from the news-facsimile.

"Moon being readied for habitation, announces Dover Spargill, owner of the moon . . ."

\* \* \*

Lady Iris looked at Sir Brampton with glowing eyes. "I told you so," said she, and Sir Brampton crouched be-

hind the Report of the Royal Astrophysical Society.

\* \* \*

Thornton Bray walked back, and forth, hands behind his back. Was it possible . . . No, of course not. And yet . . . Dover Spargill had been so innocent a sheep, so succulent for the plucking.

He reached for the visiphone, dialled his attorney. "Herman, remember when we first organized the Lunar Cooperative?"

"All of twenty-five years ago," mused Herman Birch, a tall lemon-colored man with the flat-topped face of a falcon.

"There was an old duffer, dead now, who refused to sign up. He only held a few square miles, in Aristillus crater, I believe. When we sold Lunar Co-op to Spargill, that particular parcel was not included. I wonder what the status of that claim is now?"

Birch turned his head, spoke a few words to someone out of the range of vision, returned to Bray. "What do you make of this atmosphere talk?"

Bray curled his lips. "Eyewash. Where would it come from? Moon surface is a thirteenth of Earth surface; there'd be billions and billions of tons."

"Spargill might be using transmuters."

"Suppose he is? Do you have any conception of the size of a project like that? The moon's a big place. The heaviest transmuter I know of has a capacity of a hundred tons a minute and that's chicken-feed."

"He might have built special installations."

"Where would he get the money?"

I know on reliable information that he was cleaned out when he took over Lunar Co-op . . . Just a minute, I'll call the Applied Research Foundation and make some inquiries."

He dialled rapidly, and a moment later was looking into a cautious round face. "Hello, Sam."

Sam Abbott nodded. "What can I do for you, Bray?"

"I want a little confidential information, Sam."

"What's on your mind?"

"Has Applied Research sold Dover Spargill any transmuters?"

Sam Abbott's face crinkled in a sudden broad grin. "I'll give you a straight answer, Bray: not a one. Not a single one."

Bray blinked. "How do you account for the talk of an atmosphere on the moon?"

Abbott shrugged. "I don't account for it; that's not my job."

Bray, muttering in irritation, returned to Herman Birch. Birch nodded a wise head. "That claim was open. I've just filed in your name."

Bray clamped his heavy mouth. "Good. Now I've got a legal right to visit my claim. Rent me a fast boat..."

\* \* \*

The radar alarm sounded eighty thousand miles out from the moon. The pilot threw down the switch. A harsh voice said, "You are approaching my property."

Bray pulled himself to the speaker. "I'm going out to my own property, the Niobe claim in Aristillus Crater. If you interfere with me, I'll call the Space Patrol."

The voice made no answer; Bray visualized the frantic search through

block maps and title deeds. Ten minutes passed.

A new voice said, "Aboard approaching boat: who is claimant to the Niobe claim?"

"Mc. Thornton Bray."

"Oh. Bray," said the voice in a different tone. "This is Spargill. Why didn't you say who you were? Drop on down to home camp."

"Where are you?" inquired Bray cautiously.

"We're in Hesiodus, at the south point of Mare Nubium — beside Pitarus. The old Goldenrod workings."

The camp in Hesiodus Crater occupied a typical old mining compound: a big dome of plastic anchored into the rock by a web of cables which also served to contain the air-pressure from within. The pilot landed the boat and Bray, already clad in a space-suit, jumped out to the surface.

Three men approached; under the dome of the first Bray recognized the face of Dover Spargill.

Dover waved. "How are you, Bray? Nice of you to drop out . . . What's all this about the Niobe claim?"

Bray explained. "And since the land was ownerless, I decided I had better snap it up."

As he spoke he examined his surroundings. The lunar sky, which he remembered as black, was a deep hyacinth blue. "Looks like all the talk of a moon atmosphere is true."

Dover nodded. "Oh yes . . . Come along over to the dome." He led Bray across a flat of crushed pumice. A mile behind rose the walls of the crater, tall irregular spires. At the base of the walls Bray discerned a row of black cubes.

"What's the pressure here now, Spargill?"

"Got her up to seven pounds."

"Barometric? That is to say, against a mercury column?"

"Oh my no. A misleading statement. Seven pounds against a spring scale."

Bray snorted delicately. "Tremendous waste of money, Spargill."

"Do you really think so? I'm sorry to hear you say that; I rather hoped something useful might eventuate . . . Look there." He pointed against the wall of the dome. "Geraniums. Growing outside on the moon. Never thought you'd see a sight like that in the old days, did you, Bray?"

"Mmmph. What good are geraniums? Monumental waste. As fast as you make atmosphere it'll dissipate into space. Not enough gravity here."

Dover closed the outer hatch on Bray and himself. They removed their suits, and Dover conducted Bray to the main lounge, where a dozen men and women sat reading, talking, playing cards, drinking beer.

"You've got quite a colony here," said Bray in a mystified voice. "Do they work for nothing?"

Dover laughed shortly. "Of course not . . . This is only a small part of our operation. We've got units going at almost all the old mines . . . Have some coffee?"

Bray declined brusquely. "Exactly what are your plans, if I may ask?"

Dover leaned back in the chair. "It's a long story, Bray. First, I hope you'll let bygones be bygones. I suppose I fleeced you pretty thoroughly when I took Lunar Co-op away from you, eh?"

Bray said in a strangled voice, "You fleeced me? . . . Well, let it ride. I



want to hear about this—" he jerked a thumb toward the sky "—this mad stunt of yours."

Dover said soothingly, "It's probably not so impractical as you think. Consider the future, Bray. Do you see what I see?"

"Forests, meadows, grass-lands, Moon, the green planet! Trees five hundred feet tall! We're filling craters with water right now. Moon, the world of a million lakes! In five more years we'll have thirteen pounds pressure, and we'll be living out-of-doors."

"Waste, waste, waste," intoned Bray. "You'll never get a stable atmosphere."

Dover scratched his head. "Well, of course I may be mistaken—"

"Sure you are," said Bray bluffly. "I hate to see you making a fool of yourself, Dover. For old time's sake I'm willing to—"

"My theory," explained Dover, "was that the composition of the atmosphere determined how fast it dissipated. Naturally we expect to make adjustments for a long time to come."

"Well, of course—"

"But actually, we're building a special kind of atmosphere, rather different from Earth's."

Bray's nostrils flared in interest. "How so?"

"Well, in the first place, xenon replaces nitrogen. Specific gravity of 4.5, as against 1 for nitrogen. Then we're using the heaviest possible isotopes for oxygen, carbon and nitrogen, and deuterium rather than hydrogen for our water. It all works out to a pretty dense atmosphere — physiologically identical to Earth air, but about three and a half times as dense. So our vapor loss into space will be mini-

mized to almost nothing."

Bray cracked his knuckles. Something must be wrong. Dover was saying, "We could easily make the atmosphere even denser, if we so desired— by substituting radon for the xenon."

"Radon! My God—you'd fry!"

Dover smilingly shook his head. "Radon has many isotopes, not all significantly radioactive. On Earth we're familiar only with the breakdown product of radium, thorium, actinium. But radon's disadvantage is that it's too heavy. A gust of wind would bowl a man off his feet, like hitting him with a sack of sawdust."

"Hm . . . Interesting," remarked Bray absently. Some means must be found to repair what he now recognized as an error in judgment: allowing Dover to become the sole owner of the moon. Not quite sole owner; Bray, as a lunar property holder, was entitled to a certain advisory status. Reason, sweet reason, was the phrase.

He explored the ground cautiously. "What do you propose to do with all this property?" He winked slyly. "Sell it at a fancy figure?"

Dover made a deprecatory motion. "I suppose that an unprincipled man, by subdividing and selling, could easily become a multi-billionaire . . . Did you say something?"

"No," said Bray, swallowing hard.

"I just coughed."

"But I have a different end in view. I want to see the moon become a garden suburb of Earth—a park, a residential area. Certainly I want no housing projects on the moon, no tourist hotels . . ."

"Naturally you're using Applied Research transmuters?"

"Of course. Are there any other kind?"

"No, not that I know of."

"These are special mammoth units built specially for this project. We've got two thousand in operation already. We push them under a mountain, bulldoze rock into the hoppers. Every week two more units go into operation; there's a tremendous amount of material to transmute, and we're on a fifteen year schedule. That means that we've got to average three billion tons a day, for atmosphere alone; so far, we're up to the mark."

Bray grimaced, clenched his fist. Observing Dover's questioning look, he blurted, "Sam Abbott at Applied Research is a damn liar. Said he never sold you any transmuters."

"But that's correct, we're using them free, on a loan basis."

"Free!"

Dover turned out his hands in a gesture of frankness. "That's the only way I could undertake the project. Buying out Lunar Co-op took almost everything I had. But my father originally endowed the Foundation, and there was a certain sense of obligation. In a way, we're partners in the deal." He nodded toward the other occupants of the lounge. "All Foundation staff. They're sinking the profits from producing the transmuters into the scheme; of course they'll get it all back ten-fold."

"But you still retain control?"

"All except the Niobe claim." Dover laughed jovially. "You slipped one over on me there. I thought that I was sole owner, and now I fear that . . . Well, no matter."

Bray cleared his throat. "As you

say, we're the sole owners, you and I. I imagine we should form some kind of supervisory board to protect our interests so to speak."

Dover seemed surprised. "Do you think that such a formality is necessary? After all the Niobe claim—"

Bray said portentously, "I'm afraid I'll have to insist."

Dover frowned. "I don't think the claim will impose as much of a burden on your time as you fear."

Bray raised his eyebrows. "How so?"

"Well—" Dover hesitated "—you haven't visited your holdings yet?"

"No. All I know that it's a ten-mile-square block in the floor of Aristillus."

Dover got up. "Perhaps we had better fly up and take a look at it."

In a small stub-winged air-craft they rose up out of Hesiodus, flew north along the shore of Mare Nubium.

"All good basalt," said Dover. "A few years of weathering should produce a magnificent red soil. We're experimenting with bacteria to hasten the process."

Sinus Medii passed below, and the eastern littoral of Mare Vaporum. Ahead loomed the great crags of the Appenines a little to the left was the great crater Eratosthenes.

Bray craned his neck. "Surely that's not water?"

"Oh yes," smiled Dover. "Lake Eratosthenes. We're using Eratosthenes and one other for primary evaporation points. Water will come rather slower than the air; the moon will be a dry world for quite some time yet."

Bray said bluffly, "I believe I'll put up a big resort hotel on my property—

amusement park, big casino, dog-racing. He nudged Dover waggishly. "Thank God, there's no blue laws out here, eh Dover?"

Dover said stiffly, "We hope to govern ourselves, with the aid of our native good taste."

"Well," said Bray, "if I had a bit more land, I wouldn't be forced to make do on so little. Personally I don't like the idea, but what'll you have? There's just the Niobe claim, and no more. I hope it doesn't turn out an eyesore . . . Perhaps if you'd make me a good deal for old time's sake, let me buy back a chunk of Lunar Cooperative for, say—"

Dover shook his head. "I'm afraid that's impossible."

Bray snapped shut his jaw. "Then I'll have to do the best I can at Aristillus. A sky-scraper, maybe. We'll make it the hot-spot of the moon. Sort of a Latin Quarter, a Barbary Coast."

"Sounds interesting."

The Appenines stabbed up at them from below. "Beautiful mountain scenery," said Dover. "Remarkable. Wait twenty or thirty years, and you'll really see something. That's Palus Putredinus below, and ahead, those three craters—"

"Archimedes, Autolycus and Aristillus," said Bray. "Aristillus—future hot-spot of the moon."

"Lake Aristillus," said Dover absently.

Bray froze in his seat. The gleam of water was unmistakable.

"A beautiful crater," said Dover. "And it makes a beautiful lake, ten thousand feet deep, I believe."

The airplane circled over the placid

blue surface. A small island protruded from the center.

Bray found his voice. "Do you mean to say," he demanded, "that you've submerged my property under ten thousand feet of water?"

Dover nodded. "See there . . ." He pointed to a cascade of water tumbling down the eastern wall. "Back along that rill sixty units are turning out water and xenon. I'll name the river after you, if you'd like. Bray River . . . From your point of view, rather a sad coincidence that we decided on Eratosthenes and Aristillus for our first lakes. I didn't have the heart to break the news to you back at the camp."

Bray roared, "This is insufferable! You've flooded my property, you've—"

Dover said in a conciliatory voice, "Naturally we had no idea that the property was not ours; if I had known that you wanted to build a 'hot spot' — as you call it — I'd never have planned the lake."

"I'll sue, I'll collect damages!"

"Damages?" asked Dover in a pained voice. "Why surely—"

Bray rolled his eyes in fury. "I can prove that the property was worth millions, that—"

"Er — how long ago did you come into possession of the Niobe claim?"

Bray subsided suddenly. "Well, as a matter of fact—It makes no difference! You're guilty of—"

"Surely it's obvious, Mr. Bray, that you filed claim on property already under water." Dover scratched his head. "I suppose the claim is legal enough. Can't see what you'll do with your property, Mr. Bray. You might try stocking it with trout . . ."

TEXT BY JUDITH MERRIL

See Page

128



1. Lois Miles Gillespie  
2. H. Beam Piper  
3. David A. Kyle  
4. Judith Merril Pohl  
5. Frederik Pohl

6. Philip Klass  
7. Richard Wilson  
8. Isaac Asimov, Ph.D.  
9. James A. Williams  
10. Martin Greenberg

11. Sam Merwin, Jr.  
12. Walter J. Bradbury  
13. Bruce Elliott  
14. L. Jerome Stanton  
15. Jerome Bixby

16. Basil Davenport  
17. Robert W. Lowndes  
18. Olga Ley  
19. Dawaid Train  
20. Charles Dye

# HYDRA CLUB

harrison



21. Frank Belknap Long  
22. Damen Knight  
23. Thomas S. Gardner, Ph.D.  
24. Harry Harrison  
25. Sam Bowne  
26. Groff Cooklin

27. Larry T. Shaw  
28. Lester del Rey  
29. Frederic Brown  
30. Margaret Bertrand  
31. Evelyn Harrison

32. I. Sprague de Camp  
33. Theodore Sturgeon  
34. George C. Smith  
35. Hans Stefan Santesson  
36. Fletcher Pratt

37. Willy Ley  
38. Katherine MacLean Dye  
39. Daniel Keyes  
40. H. L. Gold  
41. Walter Kubilius

(The remaining twenty-odd members showed up too late at the meeting.)

## THE HYDRA CLUB

Text by Judith Merril

An organization of Professional Science-Fiction Writers, Artists and Editors.

*Article One: The name of this organization shall be the Hydra Club.*

*Article Two: The purpose of this organization shall be...*

**P**UZZLED silence greeted the reader as he lay down the proposed draft of a constitution, and looked hopefully at the eight other people in the room. "The rest of it was easy," he explained, "but we spent a whole evening trying to think of something for that."

"Strike out the paragraph," someone said. "We just haven't got a purpose."

And so we did. The Hydra Club was, officially, and with no malice in the forethought, formed as an organization with no function at all. It was to meet twice a month; it hoped to acquire a regular meeting place and a library of science fiction; its membership was to be selected on no other basis than the liking and approval of the charter members, who organized themselves into a Permanent Membership Committee for the new club.

That was in September, 1947. In four years of existence, the club has increased sevenfold. Its roster now lists more than sixty members, and the number is that low only because of the strict stipulation that admission to membership is by invitation only. There is no way for a would-be member to apply for admission; and invitations are issued only after the holding a complex secret-ballot blackball vote.

Of the nine charter members of the club, five are still active on the Permanent Membership Committee. Lester del Rey, who had been absent from the science fiction field entirely for several years, when the club was started, is now once again a leading name in the field. Dave Kyle and Marty Greenberg, who first met each other in the organizational days of the club, have since become partners in a publishing firm, Prime Press. Fred Pohl, who was then still writing an occasional story under the pen-name of James MacCreigh, has developed the then still-struggling Dirk Wylie agency into the foremost literary agency in the science fiction field. And yr. humble correspondent, who had just a few months earlier written her first science fiction story, has since become, among other things, Mrs. Frederik Pohl.

There are half a hundred other names on the rolls, many of which would be completely unfamiliar to science fiction fandom. The Club has never attempted to limit its membership to professionals working in the field. It has endeavored only to gather together as many congenial persons as possible. In the four years of its existence there have been many changes in character, constitution, solvency, and situation. A considerable library has been acquired by gift and donation, but no permanent meeting place or library space has ever been found. Meetings are now held only once a month, sometimes in the studio apartment of the Pratts', or that of Basil Davenport, more often in a

rented hall. From time to time, under the impetus of an unwonted ambition, the club has even initiated major endeavors, and less frequently has actually carried them through.

The single exception to this renewed enthusiasm for purposelessness is the annual Christmas party . . . perhaps because we have found it possible for all concerned to have a remarkably good time at these affairs in return for an equally remarkably small output of work. The success of the annual parties has rested largely on the willingness of member talent to be entertaining (and the dependable willingness of the guests to amuse themselves at the bar). At such times, there is little holding back. Why watch television, after all, or empty your pockets for a Broadway show, if you can have Willy and Olga Ley explain with words and gestures the structure of the Martian language—or watch your best friends cavort through a stefantic satire devised in the more mysterious byways of Fred Brown's *Other Mind*—or listen yearly to a new and and even funnier monologue delivered by Philip-William (*Child's Play*) Klass-Tenn?

Between this yearly Big Events, club meetings very considerably in character. A member may arrive, on any given meeting date, to find a scant dozen seriously debating the date of publication of the second issue of Hugo Gernsback's third magazine—or to find seventy-off slightly soused guests and members engaged in the most frantic of socializing, to the apparent exclusion of science fiction as a topic of interest. At these larger meetings, it takes a knowing eye to detect the quiet conversation in the corner where a new line of science fiction books has just been launched, or to understand that the clinking of glasses up front center indicates the formation of a new collaborating team.

Perhaps one of the most unlikely and most pleasant things about the Hydra Club is the way it manages to contain in amity a membership not only of writers and artists, but also of editors and publishers. We like to think that it is due to the "by invitation only" policy, and to the profound wisdom of our P.M.C., that the lions and the lambs have been induced to lie down so meekly all over the place. Even rival anthologists and agents are seen smiling at each other from time to time, and the senior editor of a large publishing house is always willing to pass on advice to newcomer specialist publishers. There are thirty-odd magazine writers in the crowd, and ten or more magazine editors—and still not a fistfight in a barload!

Hydra members are selected for interest, individuality, intelligence, and an inquiring mind, a combination unique among science-fiction organizations in my knowledge, we have now achieved four years of existence without a single major internal feud. What difficulties have arisen in relation to the club, from the outside, appear to be entirely due to the fact that, without trying, Hydra has become an increasingly important group in the professional field. But the business that takes place in and around the Hydra Club remains incidental.

When bigger and better purposes for clubs are found, the Hydra Club will still point happily to its nonexistent Article Two.

# THE TEST TUBE

by The Editors

## MAN: THE BIONOMIC QUESTION MARK

Wildlife, living in a natural community, stays in balance with its food supply. Natural checks on its population—disease, storms, droughts, fire, floods, and predators—make starvation the least of its problems.

But remove one or more of these controls and you have a hint of the very serious problem facing man today. Remove, for example, the chief enemies of the deer—the lynx and bobcat and wolf—and immediately overpopulation results, and then overbrowsing and starvation (as is now happening widely in this country).

For man, you see, has removed just about all of his population controls. He has disease well in hand, nature's violence no longer affects him seriously, and his great reproductive rate quickly fills the dents made in his population by wars. So that every day the world's population increases by 68,000. So that the world's population has doubled in the past century, and at the present rate will double again in the next century.

Three recent books have tried to call our attention to this dilemma, "Road to Survival" by William Vogt, "Human Fertility" by Robert C. Cook, and "Population on the Loose" by Elmer Pendell, and without taking one side or the other in the storm of controversy they have aroused, the editors of MARVEL want to keep the ball rolling. As Wendell Johnson concluded in his review in the NEW YORK TIMES of "Human Fertility": "Mr. Cook is a scientist of great integrity and mature wisdom. If as private citizens and public officials we do not read and heed what he says, it may not matter very much what else we do read or heed."

So is it true, as one large school of thought claims, that all we need to do is improve our agricultural methods and encourage new scientific means of producing new kinds of food; that man's ingenuity can feed any number of people—or is the truth at the opposite pole, that there is only so much human food potential on the earth, that we shall have to control families, both for quality and quantity, if we are to bring man into balance with his food supply? (Or will we scientifically, simply spread out to new frontiers in space?)... The editors of MARVEL hope that its current controversy, "Should Population Be Controlled?", will help you make up your mind on this most vital question of our time.

## HOW YOU RATED THE STORIES IN THE AUGUST ISSUE

| RATING | AVERAGE | TITLE                                | AUTHOR           |
|--------|---------|--------------------------------------|------------------|
| 1.     | 2.6     | SEED (novel)                         | Raymond F. Jones |
| 2.     | 3.0     | AT NO EXTRA COST (short)             | Peter Phillips   |
| 3.     | 3.1     | THIS JOE (novelette)                 | A. E. van Vogt   |
| 4.     | 3.2     | AN EASY LITTLE PUZZLE (novel)        | Philip Latham    |
| 5.     | 3.3     | SKAG WITH THE QUEER HEAD (novelette) | Murray Leinster  |
| 6.     | 4.1     | YES AND NO (novelette)               | Kris Neville     |



## MARVEL'S THIRD COVER-TITLE CONTEST

Time to rock your brain again! What do you think would be a good title for the Bak cover on this issue? If you didn't win a prize before, try again (you'd be surprised how many candidates are right on the heels of the winners) and better luck this time. It doesn't, after all, cost you anything. So here's what you do:

1. Dream up a title for this issue's cover painting by Hannes Bak (if the edge of your wit is dull, try looking at the picture upside down!).
2. Include this in your letter to "Under The Lens", or jot it down on your story-rating ballot.
3. Mail it to The Editor, MARVEL SCIENCE FICTION, Stadium Publishing Corporation, 350 Fifth Ave., New York 1, N.Y.

### For the most interesting and original titles the following prizes will be awarded:

**1st prize:** The original manuscripts of this month's controversy, "Should Population Be Controlled?" by Fritz Lieber, Arthur Burks, and Fletcher Pratt.

**2nd through 6th Prizes:** Original art-work or illustrations in this issue of MARVEL.

**All winners will be announced in the next issue of MARVEL.**

## CONTEST RULES

1. Only one entry may be submitted by each reader.
2. Anyone may enter the contest except members of the MARVEL staff.
3. All titles become the property of Stadium Publishing Corporation and will not be returned.
4. Decisions of our judges will be final.

**Get that letter off, with your title-entry, today!**

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## COVER-TITLE CONTEST WINNERS

Well, this time you helped us considerably in our judging the entries in the August issue cover-title contest. This time you made it very clear that you see eye-to-eye with us on what a good title is. Because no less than four readers submitted variants of the title that we considered best—and two other readers sent in the identical title that we judged second best! So two titles capture all six prizes!

We gave the first prize, however, to the variant, on the top title, that we thought was the most intriguing. Harvey Frey's "It Went Thataway" stirred the imagination more than "They Went Thataway", somehow, we felt. "It" has a more ominous, thing quality makes you wonder what strange other-world creature "It" will be. Whereas "They" could simply mean the girl's perfectly harmless companions.

| PLACE | TITLE                         | WINNER                                 |
|-------|-------------------------------|----------------------------------------|
| 1.    | "It Went Thataway"            | HARVEY FREY<br>Los Angeles, Calif.     |
| 2.    | "They Went Thataway"          | S. W. McCOY<br>London, Ontario, Canada |
| 3.    | "They Went Thataway"          | JOE MARTINO<br>Warren, Ohio            |
| 4.    | "They Went Thataway, Partner" | DALTON SIMONS<br>Aurora, Colorado      |
| 5.    | "Guided Tour"                 | A. J. WEINREICH<br>Minneapolis, Minn.  |
| 6.    | "Guided Tour"                 | MICHAEL WIGODSKY<br>Houston, Texas     |

# THE FIRST SPACE SUIT



The first space suit has already been invented. The U.S. Air Force has developed a pressure suit for high altitude flying. With a few modifications, this suit can be adapted for use in space.

The one-piece lucite helmet permits 360° vision. The suit is made of rubberized fabric with bellows-type joints. These are necessary to permit the limbs to bend against the pressure within the suit.



The belt unit contains a gelger counter, two-way radio and other electronic equipment. Simple push-button controls permit operation by the heavy space gloves.

Lead glasses give protection against the intense radiation of the unshielded sun. Oxygen tanks connected to the head piece supply air for three hours.



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